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AMERICAN Cinematographer

THE MAGAZINE OF MOTION PICTURE PHOTOGRAPHY

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Marlene Dietrich stars again — this time in "Chuck-A-Luck," photographed by Hal Mohr, A.S.C.

THIS MONTH • **Economical TV Filming • Husband-Wife Camera Team • The Amateur Today • Evolution of the Finder Ground Glass**

JULY
1951

tv

film products of superior quality by Du Pont

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CHECK THIS HANDY CHART:

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Sound Recording	**Type 802-A**—An excellent sound recording film for either variable area or variable density recording.	**Type 801**—A positive-type emulsion approximately three times the speed of fine-grain positive stock Suitable for variable area or variable density recording.
Kinescope Recording	**Type 824-A**—A fine-grain, low-contrast film designed for TV recording. Ideal for prints intended for telecasting.	**Type 824-B**—Has same characteristics as Type 824-A.
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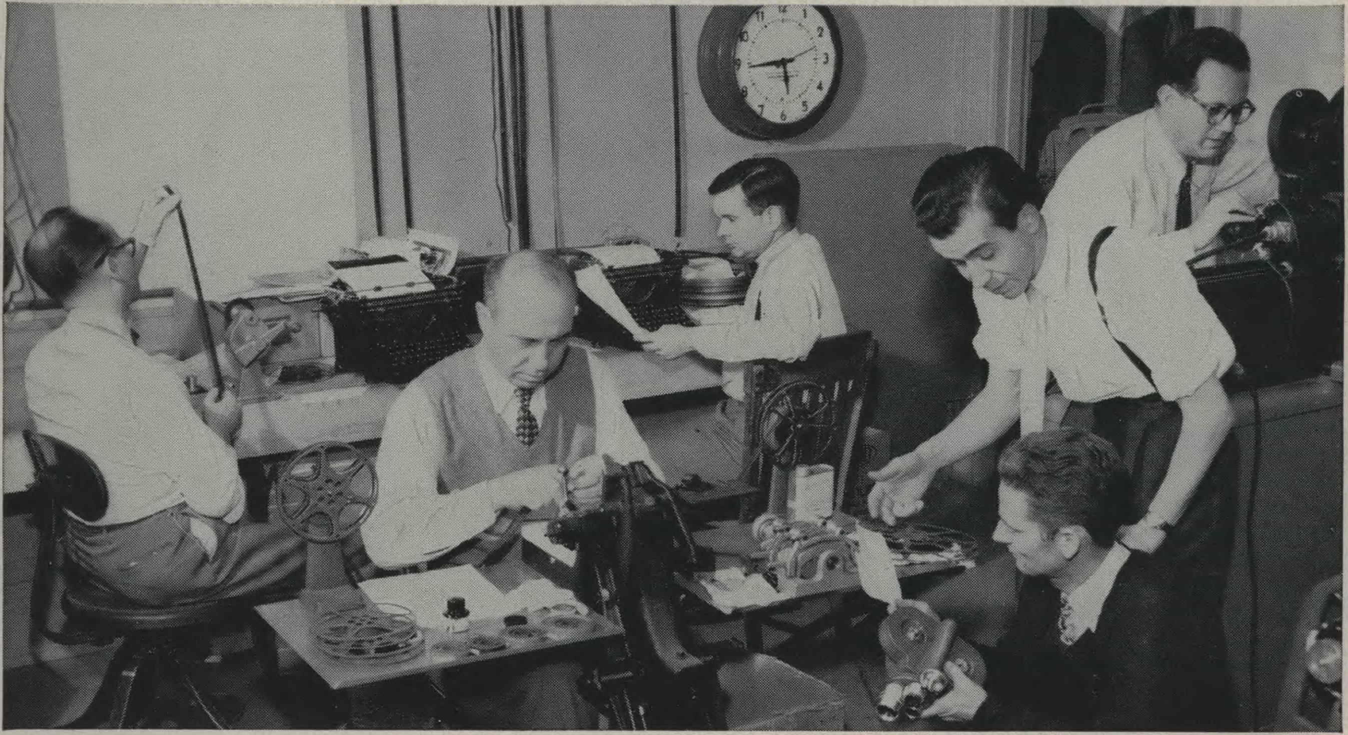
KTTV Staff Uses B&H Equipment To Make Deadlines

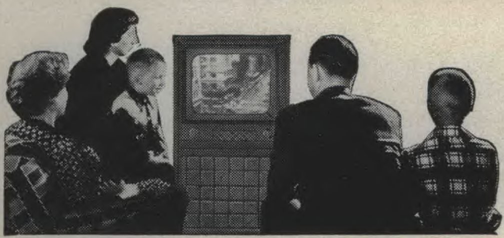
Station KTTV is attracting Los Angeles viewers with a daily "live" news reel. The popularity of this feature depends on getting on-the-spot movies of local events . . . editing and preparing them for showing the same evening . . . and making that showing a *finished* production.

To do this successfully, day in and day out, requires highly competent staff teamwork, plus the finest equipment. The staff at KTTV who work with Bell & Howell camera, projector and editing equipment have found it perfect for the job!

Shooting a street scene with a Bell & Howell 16mm "70" Camera



KTTV News Unit at work in the Film Editing Room. Man in center splices film at B&H Film Editor



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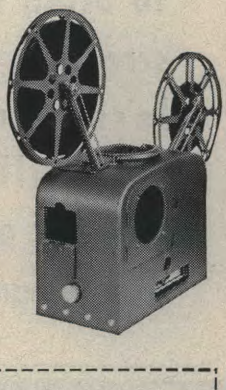
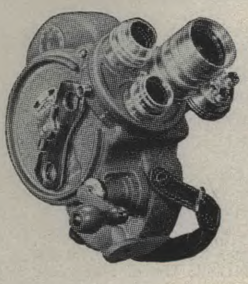


← Matched For Your TV Needs →



16mm 70-DL Camera. This newest member of the famous B&H 70 series is built with precision . . . versatile enough for most any TV job. The 70-DL operates at 7 precise, governor-controlled film speeds—the 204° open segment shutter giving 1/40 of a second exposure at exact sound speed (24 frames). Can be adapted to take film to which sound is to be added. Three-lens turret assures you of the right lens for any shot . . . instantly. Also has positive viewfinder with matching objectives and parallax correction, critical focuser, and hand crank.

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THE MAGAZINE OF MOTION PICTURE PHOTOGRAPHY

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Editorial and Business Office: 1782 N. Orange Dr., Hollywood 28, Calif.
Telephone: GRanite 2135

VOL. 32 **JULY • 1951** **NO. 7**

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ON THE COVER

AN INTERESTING travel shot conceived by Hal Mohr, A.S.C., for a scene in "Chuck-A-Luck," which brings Marlene Dietrich back to the screen in Technicolor. Shot called for camera crane to travel full length of track and at same time be maneuvered for constantly changing camera angle. Mohr (wearing light felt hat), barely visible behind camera, also directed the photography of "Destry Rides Again," one of Dietrich's biggest film successes.—*Photo by Eddie Jones.*

AMERICAN CINEMATOGRAPHER, established 1920, is published monthly by the A. S. C. Agency, Inc., 1782 N. Orange Dr., Hollywood 28, Calif. Entered as second class matter Nov. 18, 1937, at the postoffice at Los Angeles, Calif., under act of March 3, 1879. SUBSCRIPTIONS: United States and Pan-American Union, $3.00 per year; Canada, $3.00 per year; Foreign, $4.00. Single copies, 25 cents; back numbers, 30 cents; foreign single copies, 35 cents; back numbers, 40 cents. Advertising rates on application. Copyright 1951 by A. S. C. Agency, Inc.

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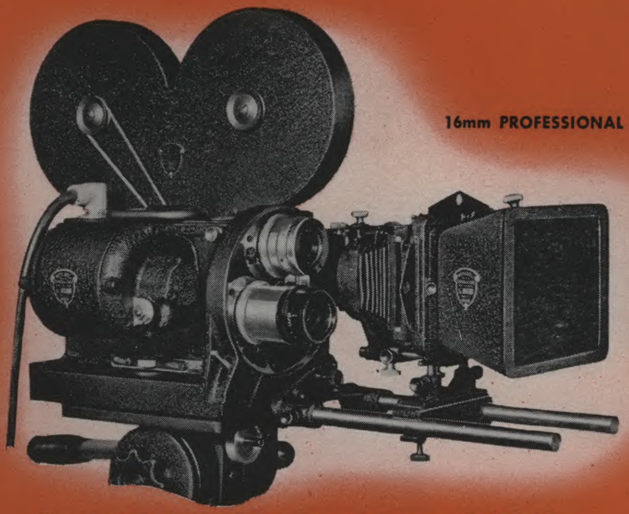

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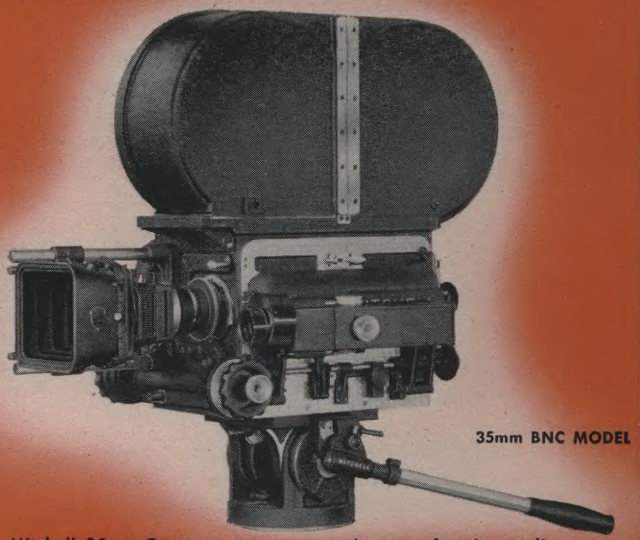
The 16mm Professional has the same proven Mitchell 35mm features—to bring 35mm quality to 16mm screens. Equipped with 16mm Mitchell blimp, this camera is a favorite of leading commercial producers for sound photography.



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The Mitchell 35mm Camera—standard equipment of major studios—is internationally known for dependability and performance. For superb photography, Mitchell 35's are available in BNC (blimp unnecessary); NC and Hi-Speed models to meet every requirement.

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*85% of the motion pictures shown in theatres throughout the world are filmed with a Mitchell

Hollywood
Bulletin Board

INSPECTING new reflex motion picture camera made for Army Signal Corps and Air Force by the Cameraflex Corp., are, left to right, Jim Seeley, A.S.C., George Barnes, A.S.C., and Cecil B. DeMille who considered camera's use for shots for "The Greatest Show On Earth," being filmed in Technicolor by Barnes.

Metro-Goldwyn-Mayer already has four solid contenders for Oscars in the 1952 Academy Awards with "The Great Caruso," "American In Paris," "Showboat," and "Quo Vadis"—each a photographic masterpiece filmed respectively by Joseph Ruttenberg, Alfred Gilks, Charles Rosher, and Robert Surtees.

•

Joseph Ruttenberg, A.S.C., is set to film Mario Lanza's next starring vehicle, following success of "Caruso."

•

Olle Comstedt, A.S.C., is currently in Puerto Rico filming a documentary on the rum making industry.

•

Ted Phillips, lecture film cinematographer for Burton Holmes, returned to Hollywood june 15th, after an absence of ten months, during which time he photographed material for Holmes' forthcoming lecture series in Australia, New Zealand, Sumatra and Ceylon—all in 16mm Kodachrome.

•

Staff of J. E. Brulatour, Inc., Hollywood, worked day and night, June 23 and 24, in order to move into the vaults of its many customers more than a million dollars worth of Eastman raw film stock.

On the following Monday, price of film went up between 4 and 4½ percent; but the Brulatour organization voluntarily aided its customers to save more than $50,000. Company notified every established customer of price rise in advance, and offered to deliver all film on hand at old price until deadline for price change, Sunday midnight. A nice gesture, and one the Hollywood motion picture industry won't forget.

•

Arthur Arling, A.S.C., returned June 1st from a location scouting trip to Argentina where 20th Century-Fox will film most of its forthcoming picture, "Way Of A Gaucho" in color. While in Buenos Aires, Arling met A.S.C. member Bob Roberts and also cameraman Humberto Corell at the Emelco Studios, largest in Argentina.

•

Fred W. Jackman, A.S.C., former director of photography for Mack Sennett and now executive VP of the A.S.C., is behind a motion picture camera again—this time a 16mm Bell & Howell—shooting scenes of his vacation cruise through the Alaskan Straits.

•

Benjamin Berg, A.S.C., American representative for the Eclair Camerette, is enroute to Europe on business. He will remain four months.

•

Edgar Bergen, accompanied by Charlie McCarthy and Mortimer Snerd is Europe-bound where Bergen will photograph material for a number of short subjects, featuring McCarthy and Mortimer. Initial short, filmed two years ago in Sweden by Bergen and John Boyle, A.S.C., has been released by Warner Brothers and is proving a top boxoffice attraction.

•

ON LOCATION: Ray Rennahan, A.S.C., in Colorado, directing photography of "Denver & Rio Grande," Nat Holt Technicolor production for Paramount . . . **Charles G. Clarke, A.S.C.,** in Montana directing Technicolor photography of "Red Skies Of Montana" for 20th Century-Fox . . . **Robert Surtees, A.S.C.,** in Wyoming shooting "The North Country" in Technicolor for MGM . . . **Jack Cardiff, A.S.C.,** in Belgian Congo shooting "African Queen" in Technicolor for Horizon Productions . . . **Daniel Fapp, A.S.C.,** in New York City shooting "Anything Can Happen," Perlberg-Seaton Prodn. for Paramount . . . **Winton Hoch, A.S.C.,** in Ireland, directing the Technicolor photography of "The Quiet Man," for Republic Pictures.

•

S.M.P.T.E.'s semi-annual convention will be held in Hollywood at the Roosevelt Hotel, October 15 to 31st, according to Peter Mole, A.S.C., Society president.

SILVER SPURS AWARD which Ernie Palmer, A.S.C. won for photography of 20th-Fox's "The Gunfighter," is displayed here by Palmer (right) and Sol Halprin, 20th's camera department head. Award was made by Reno Chamber of Commerce for best photography of an outdoor western picture.

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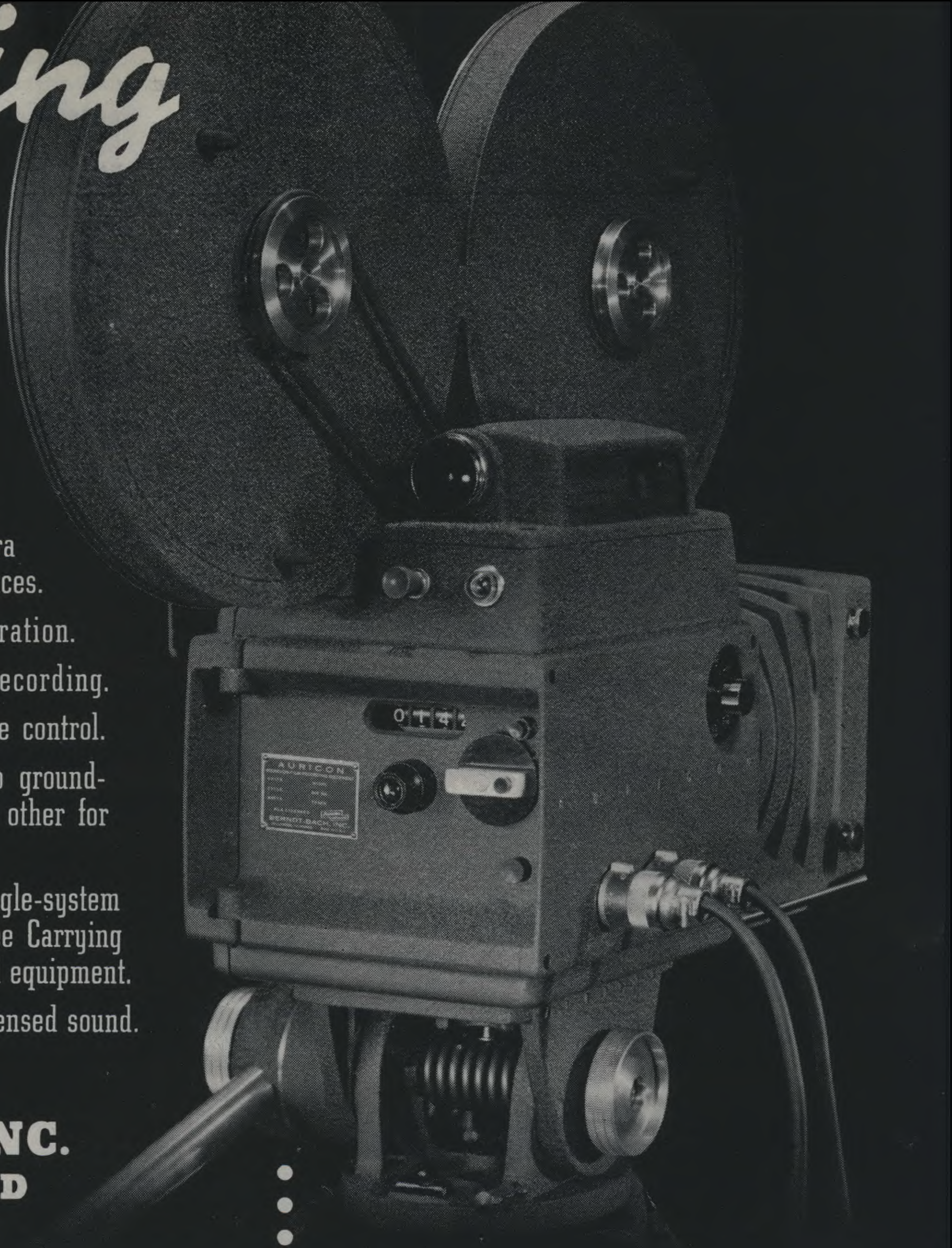

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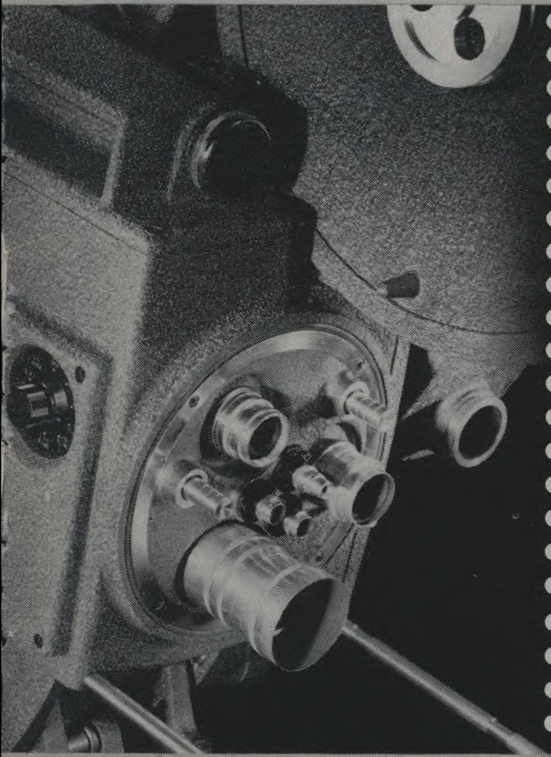

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BELL & HOWELL EYEMO, Model K	$275.00
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EASTMAN KODAK TRACKING CAMERA. electric	$325.00
BELL & HOWELL EYEMO "K", with electric motor. For instrument panel recording	$375.00
MISSILE TEST CAMERA, with seven Zeiss Tessar lenses, 9.5cm, f/3.5	$925.00
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COOKE 20" f/5.6	$325.00
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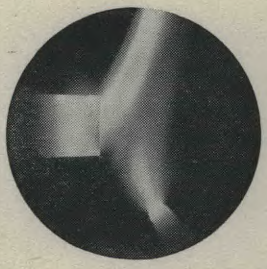

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We have SATISFACTORILY demonstrated the reliability of our 35 mm viewfinder ground glasses by projection method to the SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS in NEW YORK CITY.

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35mm TV viewfinder ground glass in HOLLYWOOD, west of Rockies and in the Pacific slands area, write or see
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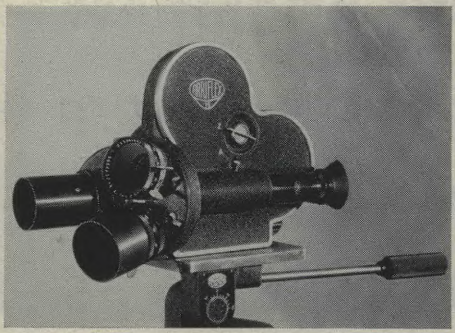
WHAT'S NEW

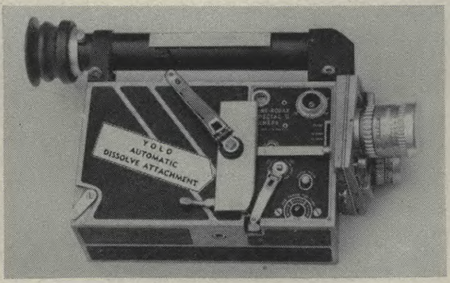
in equipment, accessories, service

Arriflex 16mm motion picture cameras will soon be available in this country, according to Kling Photo Supply Corporation, which has been appointed U. S. agent for the camera by the makers, Arnold & Richter KG, Munich, Germany (U. S. Zone).

The Arriflex 16 incorporates all the advantages of the famous 35mm Arriflex, including the mirror reflex system which permits viewing and focusing through the taking lens while camera is in operation. Camera, complete with three lenses, weighs only 6½ pounds. Further data and price may be had by writing to Kling Photo Supply Corp., 235 4th Ave., New York 3.



The Yolo Automatic Dissolve for Ciné Special cameras has been improved and now is smaller in size and completely redesigned so that it allows camera's backwind crank to fold back and fit socket normally. Easier installation is also claimed for the new model which sells for $48.00 and enables Ciné Special owners to make perfect, evenly-timed fades and lap-dissolves in the camera. Write Joseph Yolo, 5968 Santa Monica Blvd., Hollywood, Calif.



Mike boom operators will welcome the new Kinevox Mono-Boom which features a quick-detachable telescoping support arm that may be extended up to 9 feet, and which takes some of the weight off of the operator, makes for easier and more efficient operation of mike boom. Boom arm, of telescoping design, may be extended up to a distance of 16 feet. Folded, complete unit is a handy 6-foot package which may be easily carried in car with recording and camera equipment.

Manufacturer is Kinevox, Inc., 116 So. Hollywood Way, Burbank, Calif. Price of complete Mono-Boom is $69.50, FOB Burbank.

Hollywood Camera Exchange, 1600 N. Cahuenga, Hollywood, has been appointed west coast distributor for Greiner TV Alignment Ground Glasses and other viewfinder ground glasses manufactured by Greiner Glass Industries Company, New York City.

Ansco 8mm Daylight Type Color Film is now available in magazine loads for the first time. New product marks Ansco's initial entry into the amateur motion picture field with 8mm color film. Film is packaged in new "Twin-Eight" magazines to produce 50 feet of 8mm movies. Price per magazine is $4.50, including tax and processing.

Celebrating event of company's production of its quarter-millionth 16mm magazine ciné camera, Bell & Howell Company, Chicago, Ill., has marked down the price on its two leading 16mm magazine cameras—the Auto Load and the Auto Master—as a special sales inducement during the months of June and July. At dealers everywhere you can now buy the Auto Load for only $174.95, and the Auto Master for $234.95—about a $15.00 saving on each.

(*Continued on Page 288*)

HOUSTON-FEARLESS PANORAM DOLLY... This versatile piece of equipment provides the cameraman with complete mobility and adjustment of camera angles. Leveling head, upon which friction or geared head is mounted, can be quickly, smoothly raised from 14" to 70" high, remaining level at all times. Entire cantilever arm revolves easily on turret base fast or slowly. Dolly rolls smoothly, quietly, turns on its own axis or can be moved sideways. Very maneuverable in tight places. Steel and aluminum construction provides maximum strength and minimum weight. Top quality throughout. Developed and improved during many years use by leading Hollywood Studios.

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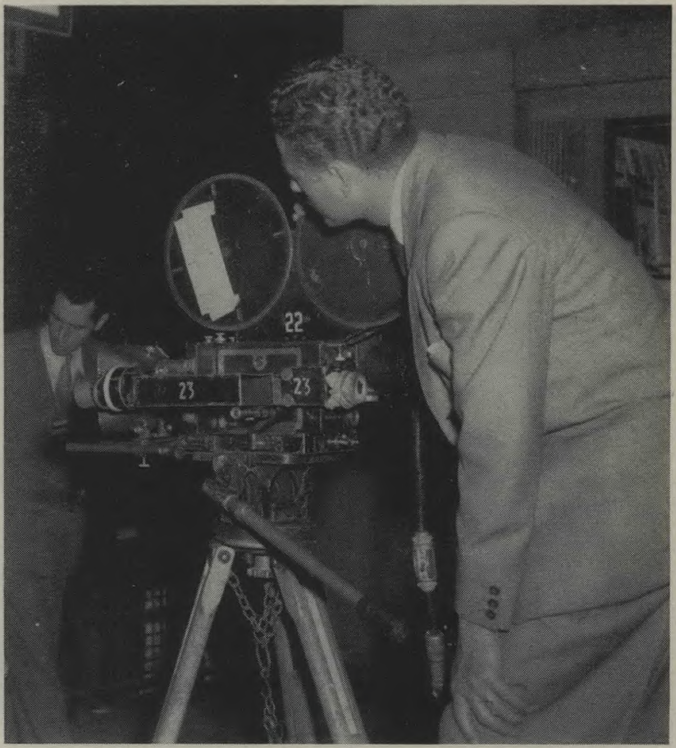
"WORLD'S LARGEST MANUFACTURER OF MOTION PICTURE PROCESSING EQUIPMENT"

CAMERA and lighting combine to create a mood of unvarnished reality in opening scenes of "The House On Telegraph Hill," adventure tale of Polish refugee who comes to America to live in famed San Francisco mansion.



LUCIEN BALLARD, A.S.C., directed the photography of "House On Telegraph Hill," giving it a subtle, pictorial mood of impending violence without resorting to exaggerated camera effects.

How the subtleties of fine cinematography were employed in filming . . .

"The House On Telegraph Hill"

By HERB A. LIGHTMAN

"HOUSE ON TELEGRAPH HILL," a romantic suspense drama produced by 20th Century-Fox, is a prime example of how the subtleties of fine cinematography can be employed to build an atmosphere of mystery and quiet horror on the screen.

The photography by Lucien Ballard, A.S.C., has all the gloss one would expect of a top Hollywood cinematographer. It is notable for the subtle manner it conveys the desired mood of impending violence without use of exaggerated camera effects, which have become a cliche of this type of presentation. There are no wierd camera angles, spectacular lighting or hedge-hopping dolly shots to call attention to photographic mechanics. The picture owes its pungent, eery quality to the precise and intelligent way in which the camera was coupled with incisive direction to tell the story.

"House on Telegraph Hill" tells of the adventures encountered by a Polish refugee who comes to San Francisco and takes up residence in a rococo hilltop mansion, after marrying a young man obsessed with the idea of killing the heroine and her young son in order to collect their inheritance. The main suspense element arises from the cat-with-the-mouse tactics used by the heavy to further his murderous ambition. He attempts to murder his wife by pushing her off a cliff, sabotaging the brakes on her car as she starts down Telegraph Hill, and poisoning her orange juice. Throughout the exposition of all this skullduggery, the impression is conveyed that the house itself hides certain sinister secrets of past violence. Ballard's photography is accurately keyed to the varying moods of individual sequences.

In the opening scenes, which take place in the Belsen concentration camp, the camera and lighting combine to create a mood of unvarnished reality and dull hopelessness. Later, when the heroine arrives in San Francisco, the specific glamour of that cosmopolitan metropolis (especially as it would seem to an oppressed refugee) is portrayed in a most effective manner. But it is inside the mansion itself, where the main body of the action takes place, that the camera functions most directly as an instrument of mood.

The lighting in these later sequences is necessarily low-key—a style logically motivated by the architecture and indicated source lighting of the house, as well as by the fact that most of the climatic action takes place at night. However, in photographing these sequences, Ballard avoided "spooky" lighting, grotesque shadows and extreme camera angles. Rather than a "chamber of horrors" effect, the result is a logically conceived impression of a normal situation which slowly takes on an undercurrent of suspense as the would-be killer pursues his murderous plan.

Through all of this build-up the camera is unobtrusive, remaining in the role of the story-teller rather than getting into the act along with the players. The compositions and angles are designed solely to present the action to best advantage, although in some instances camera angles do much to enhance specific psychological effects.

For example, as the apparently normal young husband begins to reveal his homicidal tendencies, the camera adopts lower angles, so that (without benefit of weird lighting or make-up) he gradually begins to look like the sinister individual that really exists beneath his wholesome American-boy facade. In sequences where certain commonplace objects (such as a glass of milk and a sandwich or a glass of orange juice) become props important to the plot, these objects are placed prominently in the foreground of the frame, while the action in the background is played toward them.

Unusually well-executed from the standpoint of photographic mechanics is the sequence in which the heroine's car, having been sabotaged in the brake department, goes out of control and careens down Telegraph Hill, hurtling faster and faster until it overturns at the bottom. An inspired combination of camera and cutting results in such a build up of suspense, that the audience is left gasping when it is finally over.

"House on Telegraph Hill" owes much of its authentic mood to the fact that most of the exteriors were actually photographed in San Francisco. Though somewhat bothered photographically by the characteristic fog of the city as well as by smoke drifting in from a forest fire, Ballard manages to capture the atmosphere of the city by the Golden Gate and use it with full effect. Besides the title locale, other locations include the Union Market, a drugstore on the Union Speedway near Columbus Circle, the Marina, the Embarcadero, the Crocker Bldg., and the area behind another famed landmark, the Coit Tower.

A major set problem had to be overcome when it was discovered that there was no actual house atop Telegraph Hill that even faintly resembled the edifice described in the script. The required building had to have a Victorian type of architecture, gardens in front and in back, plus a driveway and garage adjacent to the entrance.

The building which actually crowned the summit of Telegraph Hill was a well-known landmark, a restaurant known as "Julius' Castle." From its grounds could be seen the famous view which includes San Francisco Bay, Yerba Buena Island, Treasure Island, Alcatraz, Oakland Bridge, Berkeley, Richmond, Angel Island and the constant parade of sea-going vessels in the harbor. The problem was to convert this restaurant into the mansion needed for the title role.

Skilled artists and studio craftsmen went to work. Precise measurements were taken of the restaurant building, its foreground parking area, and the adjoining property of a prominent physician. In Hollywood, a new front was built for the restaurant and the physician's garage, to tie it in architecturally and make both look like a private home. In blueprint a garden complete with every blade of grass and flower was outlined; an imposing wrought-iron and stone gateway built to complete the illusion of an integrated mansion and grounds. Only the first story of the building was thus reconstructed, the upper two stories, complete with rococo towers and cupolas, was a painting printed in at the studio by means of a matte process. Needless to say, the match is a perfect one.

"Julius' Castle" was closed to the public at midnight one weekend, and an all-night studio construction and landscape crew installed the new "mansion and gardens" by the eight a.m. shooting start the next morning. The film assumed a certain historical significance when it was found that the first "take" included in the background what proved to be the last view of the hospital ship Benevolence as it took off on the final voyage before its fatal accident. Another shot from this high vantage point pictured the freighter Mary Luckenbach steaming to anchor after its accidental ramming of the Benevolence.

The problems of shooting on the streets of San Francisco included the usual one of crowds swarming to watch the spectacle and getting into the scenes and under the feet of the crew. For one scene on busy Market Street the camera was set up on a sidewalk elevator below ground and enclosed with canvas and other camouflage. When the set-up was complete, the elevator was raised and the camera poked its nose just enough above ground level to shoot the scene.

The aforementioned automobile crash on the hill called for the most careful planning and execution. Twelve separate takes were made, and three cameras recorded the action. A stunt man, doubling for the ill-fated heroine, rolled the car over twelve different times without materially denting it. On the final take the convertible, instead of landing on its side as indicated in the script, turned completely over. However, clever cutting, gives a perfect impression of the car landing on its side exactly as required.

(*Continued on Page 274*)

AS THE apparently normal young husband begins to reveal his homicidal tendencies, the camera shoots from lower angles, so that he gradually begins to look like the sinister individual he is.

BALLARD considers the feminine star of "House On Telegraph Hill," Italian actress Valentina Cortesa (center), "the most mobile beauty" of any star he has photographed, a perfect subject for his camera skill.

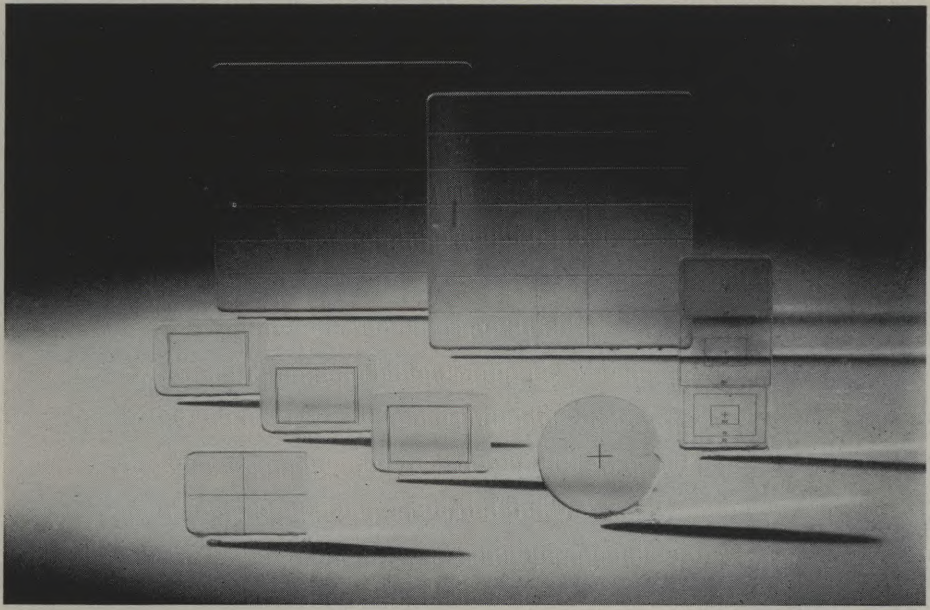


FIG. 1.—Viewfinder ground glasses used in various motion picture cameras. Shown are a round glass for 35mm Bell & Howell camera; 4 glasses for 35mm Mitchell camera (on left); a 35mm Wall camera finder ground glass (on right); and 2 aerial camera ground glasses.

Evolution Of The Viewfinder Ground Glass

Originally a simple piece of frosted glass, today it is a valuable tool of the cameraman, accurately etched to indicate apertures required for 35mm, 16mm and TV films.

By JOSEPH V. NOBLE
Vice-President, Film Counsellors, Inc., New York City

TODAY WE CONSIDER the standard focusing microscope type of viewfinder, found on all professional cameras, as an indispensible part of the camera. However this was not always so. The first motion picture cameras used the film itself as a ground glass, and the focusing of the image was done from the back of the camera by looking directly onto the back of the film. Here the cinematographer could see an upside-down image of the scene he was photographing. He could actually watch this image during photography as well as when lining up between takes.

This of course was possible only in the days of the clear base non-color-sensitive or orthochromatic films. Today's films with opaque, anti-halation base and ultra sensitivity of the emulsion makes this procedure impossible. To overcome the condition a piece of ground glass has been substituted in place of the film for viewing. One of the first cameras to substitute ground glass for film was the Bell & Howell standard motion picture camera. The glass was mechanically placed in exact position behind the taking lens of the camera so that the image size thrown by the lens on the ground glass would be exactly equal to that cast on the film during the actual photography.

This development occurred back in the days of the silent movies. At that time, the entire film height and width was utilized by the picture, and this area was known as "full aperture." In those days the viewfinder glass was simply a plain piece of ground glass without markings. The only markings that were occasionally etched on the glass were a vertical and horizontal center line, to permit easy centering of objects in the viewfinder and keeping title level. (See Fig. 1.)

With the introduction of sound motion pictures, starting in 1927, the picture size on the film was altered to allow room for a photographic sound track to run down one side of the film. This reduced the picture area, and after several experiments it was decided to standardize on the same 3x4 aspect ratio of the old "full aperture," only now this area was reduced in size to fit along the side of the sound track. This area was aptly named "sound aperture" or Academy Aperture, size .868" x .631". The old "full aperture" was then dubbed "silent aperture." When a cameraman looked into the viewfinder of a camera at that time his first question always was, "Is this thing set for sound aperture or silent aperture?" For cameras that were permanently converted from silent "shooting" to sound, an opaque mask was placed in front of the ground glass masking and reducing its area down to sound aperture .868" x .631". However, some cameras were used in this transitional period for both sound and silent filming. Quite often these cameras contained a viewer ground glass which had marked on its ground surface the area of the sound aperture; the total area of the glass visible in viewfinder telescope

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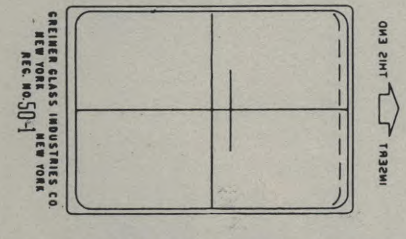


FIG. 2—Standard motion picture ground glass for 35mm Mitchell, scribed for camera aperture (.868" x .631"), projection aperture, 16mm reduction (cutoff) line, horizontal and vertical center lines, and sound center line whenever desired.

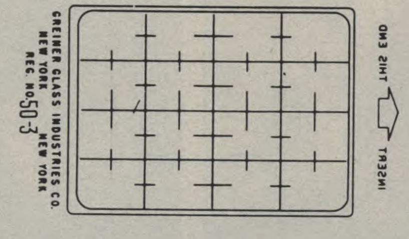


FIG. 3—Special camera effects ground glass for 35mm Mitchell cameras, scribed for same camera aperture, projection aperture, and screen grid pattern dividing and subdividing field in equal squares, plus horizontal and vertical center lines.

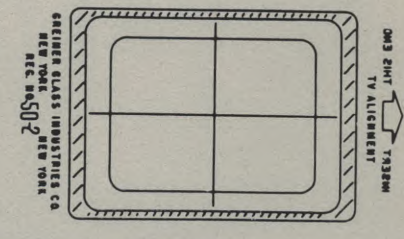
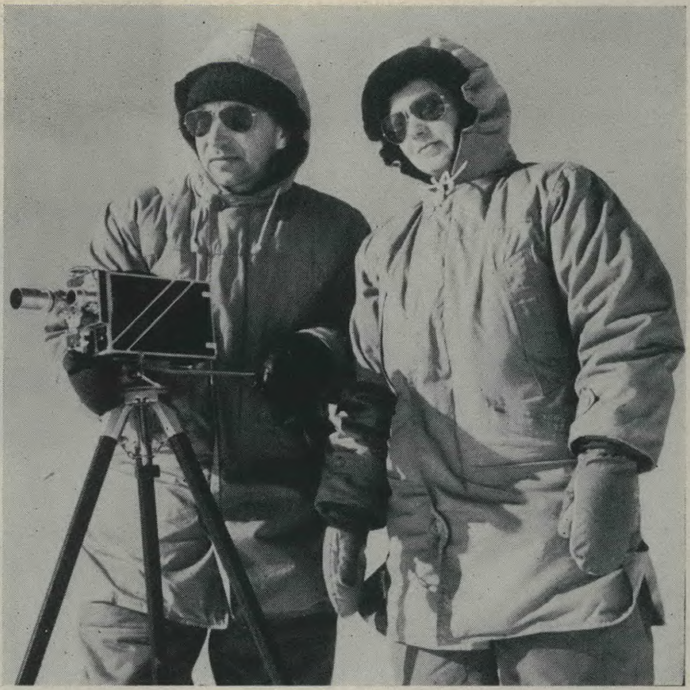


FIG. 4—TV ground glass for 35mm Mitchell cameras, scribed for same camera aperture, TV projection aperture, home receiver area aperture, and horizontal and vertical center lines. Glasses are product of Greiner Glass Industries Co.

Husband And Wife Camera Team

They filmed two Academy Award winners for Walt Disney, in 16mm Kodachrome.

By ARTHUR ROWAN



THE MILOTTES—Alfred and Elva—Walt Disney's intrepid camera team which photographed "Beaver Valley" in 16mm Kodachrome. Al Milotte used a Cine Special camera—of which he has four. Properly winterized," cameras performed perfectly in temperatures low as 10 degrees below zero.

WERE THERE Academy Awards for photography of short subjects as well as feature films, Alfred Milotte unquestionably now would have two of them gracing his mantle. Awards have been made to Walt Disney Productions for the fruits of Milotte's photography—"Seal Island"' (1950), and "BeaverValley" (1951), and only because there is not a separate Academy Awards category for short subjects photography were these fine color featurettes prevented from taking two "Oscars" each, instead of one.

As a result of his camera record of wildlife for Walt Disney's sensational new True-Life Adventure series of short features, Al Milotte is receiving recognition and honors as a leading lensman in this fascinating field. In the amazing assembly of wilderness creatures caught in their life-and-death drama in Disney's "Beaver Valley" featurettes, Milotte has repeated and exceeded his camera exploits in reporting the summer cycle of the seal harems on the Pribilof Islands for "Seal Island."

Both pictures still are being shown in the nation's theatres—two years after their initial release—which is something of a record; and while critics agree both represent the ultimate in the renowned Disney skill for clever editing and musical scoring, it is the unusual photography of unusual subjects that made the two films possible. Wherever "Beaver Valley" is shown, the questions most frequently asked are "How was the cameraman able to get such pictures?" "Where were the beavers filmed?" Professional cameramen express amazement at the patience obviously required to secure such rare photography.

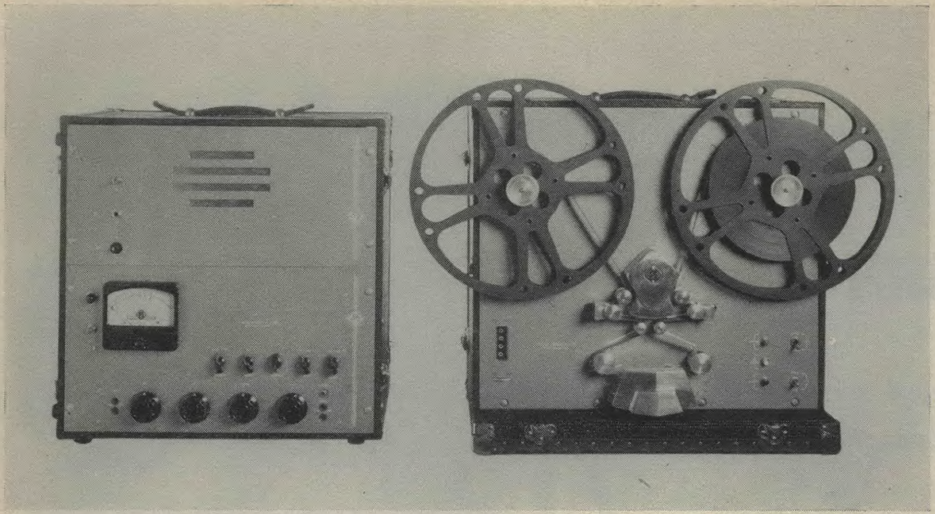
Alfred Milotte and his wife, Elma, have worked together as a photographic team since their marriage in Ketchikan, Alaska, in 1934. They set up a photographic gallery in that town, did routine commercial jobs for a time and then, following a natural bent, began to hunt wild animals with motion picture and still cameras through much of the Northern wilderness, from British Columbia to the Arctic Circle.

They have shared anxious and thrilling experiences in getting their quarry on film in its native habitat. They have been

(*Continued on Page 276*)

ALFRED MILOTTE filmed the progression of new beaver dams on a remote Montana pond, traced beavers through fresh tree cuttings. No reflectors or other booster lighting were used; shooting was done mostly at sundown—some of it in a raging snowstorm.

MAIN OBJECT was to film all the natural activity of beavers possible along with shots of related wildlife. Milotte got remarkable shots of land otter, most playful of all wild animals, and this footage furnished one of the amusing highlights of the picture.



STANCIL-HOFFMAN model S5 portable synchronous magnetic film recorder, which uses either 16mm or 17.5mm film. The power supply, amplifier and controls are in the unit at left. Film transport mechanism is in unit at right. Film capacity, 2100 feet. Units are available for rack mounting.

The Stancil-Hoffman Synchronous Magnetic Film Recorder

Available for either 16mm or 17.5mm magnetic film, sprocket drive insures synchronous recording for motion picture, TV or radio program recording.

By RALPH LAWTON

Beginning on this page is the third in a series of articles by Ralph Lawton describing the various magnetic film and tape recorders available for professional motion picture production. In the initial article appearing in our May issue, the Westrex recorder was illustrated and described. The popular Kinevox recorder and associated equipment was described in our June issue. The equipment of still another manufacturer will be described next month.—EDITOR

Synchronism, of course, is essential to any method of recording sound for motion picture production. It was one of the first problems encountered and solved when magnetic recorders first were adapted to motion pictures. Perfect synchronism has been achieved by most manufacturers of magnetic recorders through use of a central drive sprocket and perforated film, plus the use of a synchronous motor to drive the film transport mechanism. Among these is the Stancil-Hoffman Corporation, Hollywood, California, manufacturer of the Stancil-Hoffman Synchronous Magnetic Film Recorders.

The popular Stancil-Hoffman model S5 has been designed for every phase of synchronous sound recording for the motion picture and television industries by engineers well acquainted with the demands of these industries. In the S5 are included all the facilities necessary for master recording, re-recording and editing. It is designed for both 16mm and 17.5mm magnetic film recording mediums. Both the proper speed and correct "pre" and "post" equalization is provided for either size film.

For portable use the S5 recorder is divided into two sections, as illustrated. The electronic section contains two plug-in microphone preamplifiers and a double jack bridging input. It also incorporates the bias oscillator, line amplifier, recording amplifier, playback amplifier, a small power amplifier and self-contained speaker. On the control panel is mounted a standard VU meter which also indicates the bias current. A high pass speech equalizer is included. The voltage regulated power supply is designed to operate efficiently from vibrator-battery combination power sources.

The mechanical section includes the film transport mechanism, with its sprocket film drive, and the magnetic heads. On the lower part of the mounting panel are interlock push button control circuits.

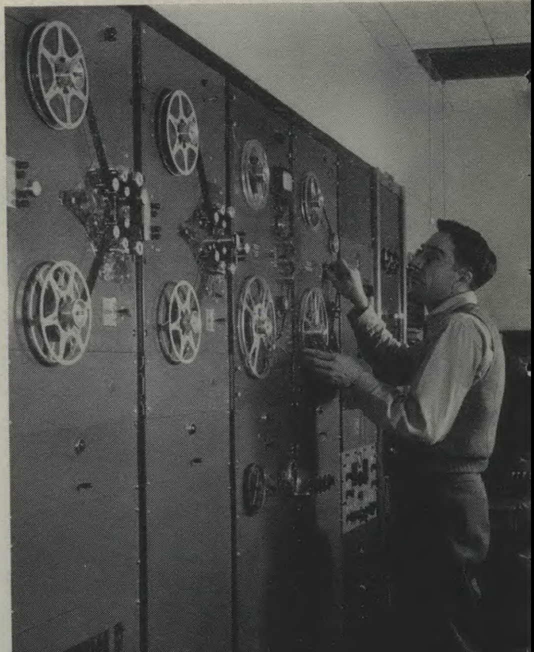
All S5 recording units come equipped with 110-volt, 60-cycle single-phase hysteresis synchronous motors. Mounting facilities are provided for the addition of interlock motors, which may be 3-phase, 220-volt; DC interlock for location work; or single-phase 110-volt interlock. The recorder will operate in reverse direction as well as forward. This permits effecting a saving of time in threading for short sequence recordings.

Stancil-Hoffman S5 recorders for 16mm magnetic film also operate at twice normal speed (72 feet per minute) forward and reverse. In the forward speed the "pre" and "post" equalization is automatically set to provide flat response at either 36 or 72 feet per minute. The frequency range is extended at the higher speed to 14,000 cycles or more.

Simultaneous playback is available through two output amplifiers—a line amplifier with an output of plus-4 VU and a monitor amplifier with built-in speaker. Either or both amplifiers may be switched from "live" to "tape" (direct to Pec) at any time without effecting recording.

Contributing to the Stancil-Hoffman quality for smooth synchronism and

(*Continued on Page 276*)



STANCIL-HOFFMAN synchronous magnetic film recorders and dubbers in use in recording studios of Moody Institute of Science, which makes scientific films.

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Dramatic Documentary Approach In Commercial Films

To entertain as well as sell is basic fundamental of George Carillon's formula for making commercial motion pictures.

By CHARLES LORING

THE PARADOXICAL problem in the production of commercial films has always been the reconciling of budget with production value. In the past an erroneous impression was held that unless every penny of the budget went directly toward plugging the sales message, the client would not be getting his money's worth. The result was usually a cut-and-dried formula picture, reeking with commercialism and completely lacking in audience appeal.

It is, of course, true that commercial films are made for the purpose of selling a product or idea, and that it is the primary task of a producer to fulfill this responsibility to his client. But the producer has an equally important responsibility: to interest and entertain the viewer; for unless a film can catch and hold audience attention, its message (and budget) will be wasted.

George Carillon, Inc., with production headquarters in Hollywood, early recognized this responsibility. They have formulated a technique for producing commercial films that combines a powerful selling message with superior technical finish certain to gain the volume of audience interest worthy of a Class A entertainment feature.

In explaining the company's approach to the commercial film, Carillon says: "The present-day filmgoer is blasé in a certain sense. He is used to seeing in the theatre the very best entertainment films that Hollywood produces. He takes for granted today's theatrical picture-making technique. Indeed he has become so 'movie-wise' that he is quite capable of criticizing inept photography, direction

(*Continued on Page 282*)

"WITHIN THESE WALLS," 4-reel 16mm color film sponsored by U. S. Gypsum Co., pictures origin and development of mineral wool as insulating material. Capt. Cook discovered Polynesians using it on roofs.

ESKIMOS, too, discovered insulation qualities in snow and ice which they used in constructing igloos. Set reproduction was constructed and filmed at Charles Chaplin Studio in Hollywood.

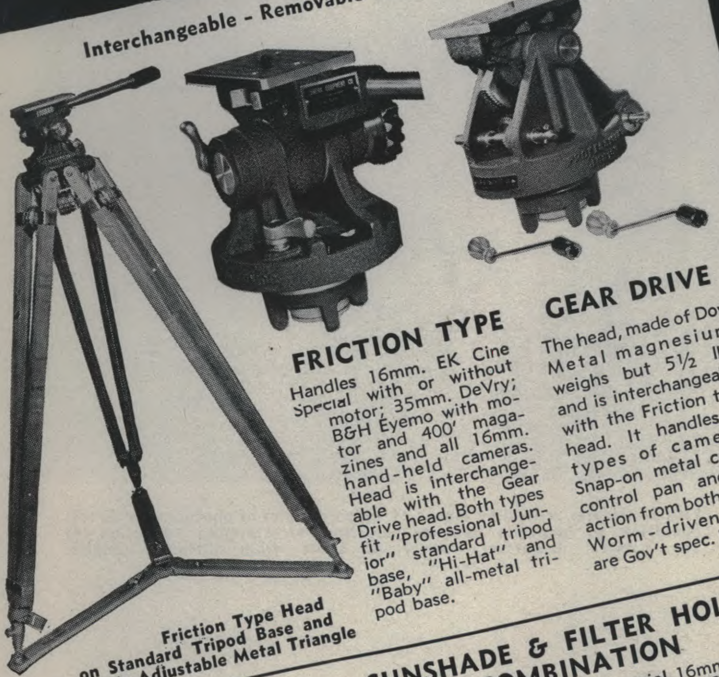
USE of top calibre technicians proved a major economy in terms of operating efficiency for George Carillon, Inc., producer of the film. In factory location, 36 setups were filmed in single day.

MAJOR SETS were constructed side by side, so that one group of lights, rigged on a single overhead parallel between them, could be used to light both sets. Easier mobility of camera resulted, too.

"PROFESSIONAL JUNIOR" Camera Equipment...

... the most versatile and dependable camera accessories available for those who prefer the finest.

Interchangeable - Removable Head Tripods



Friction Type Head on Standard Tripod Base and Collapsible Adjustable Metal Triangle

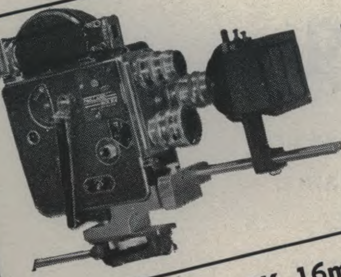
FRICTION TYPE

Handles 16mm. EK Cine Special with or without motor; 35mm. DeVry; B&H Eyemo with motor and 400′ magazines and all 16mm. hand-held cameras. Head is interchangeable with the Gear Drive head. Both types fit "Professional Junior" standard tripod base, "Hi-Hat" and "Baby" all-metal tripod base.

GEAR DRIVE

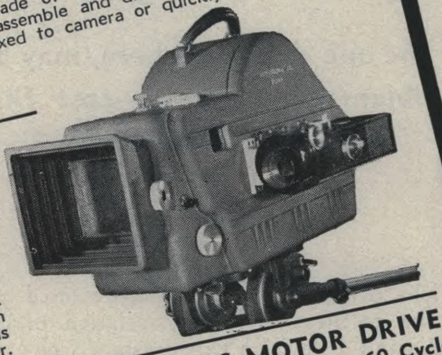
The head, made of Dow Metal magnesium, weighs but 5½ lbs. and is interchangeable with the Friction type head. It handles all types of cameras. Snap-on metal cranks control pan and tilt action from both sides. Worm-driven gears are Gov't spec. bronze.

SUNSHADE & FILTER HOLDER COMBINATION



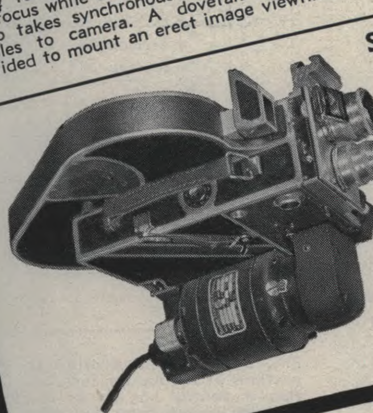
For use with Bolex and Cine Special 16mm. cameras. Holds two 2″ sq. glass filters and 2½″ round Pola Screen with handle which can be rotated for polarization. Covers all lenses from 15mm. to 6″ telephoto and eliminates need of various filters. Precision made of the finest materials. Compact, simple to assemble and dismount. May be permanently affixed to camera or quickly detached.

BLIMP for EK 16mm. CINE SPECIAL



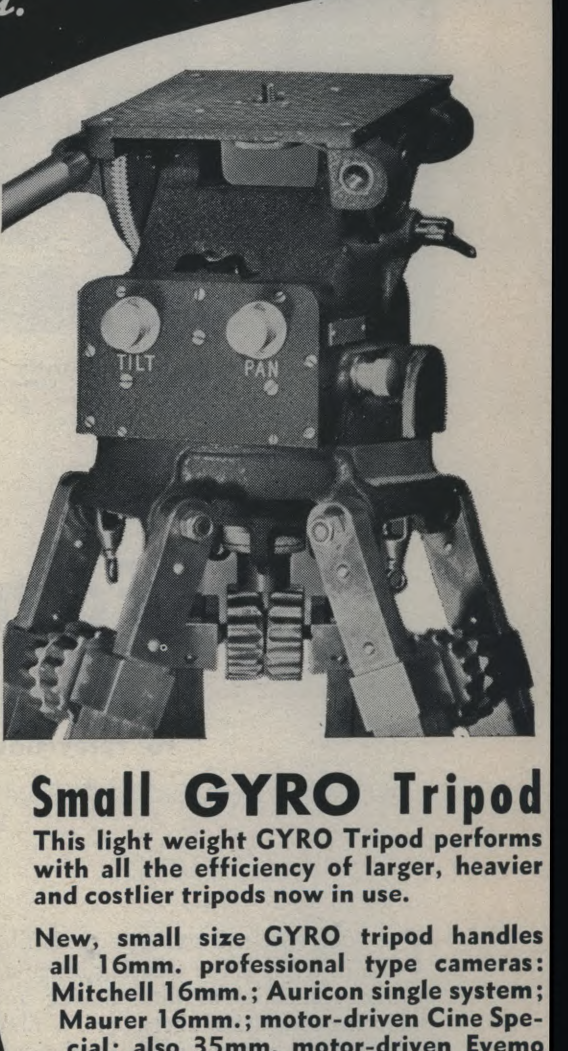
This Blimp constructed of Dow Metal magnesium, is thoroughly insulated to afford absolute silent operation. Exclusive features: Follow focus mechanism permits change of lens focus while camera is operating in blimp. Blimp takes synchronous motor drive which couples to camera. A dovetail bracket is provided to mount an erect image viewfinder.

SYNCHRONOUS MOTOR DRIVE



110 Volt A. C., Single Phase, 60 Cycle

This motor will run in synchronization with either 16mm. or 35mm. sound recorders. It is provided with mounting platform which permits removal of magazine while camera remains mounted on motor. Drive coupling attaches to single-frame shaft of camera and is mated to spring-steel drive arm of motor gear box. This assures that camera mechanism cannot be damaged if a film jam occurs as the spring steel arm drive will shear. This is easily replaced. A knurled knob on motor armature permits rotating for threading. "On-Off" switch built into base. Platform base threaded for ¼″ and ⅜″ camera tie-down screws. Rubber covered cable with plugs included.



Small GYRO Tripod

This light weight GYRO Tripod performs with all the efficiency of larger, heavier and costlier tripods now in use.

New, small size GYRO tripod handles all 16mm. professional type cameras: Mitchell 16mm.; Auricon single system; Maurer 16mm.; motor-driven Cine Special; also 35mm. motor-driven Eyemo with 400′ magazine. It features Super Smooth Pan & Tilt Action.

Positive pan-locking knob. Tilt locking lever. Quick wrist action locking knob for leg height adjustments. Pan handle can be inserted at 3 different positions on tripod head for operator's convenience or extreme tilt work. Legs are hard maple specially treated and warp resistant. Tripod head is Dow Metal magnesium and aluminum. Built-in spirit level. Swivel tie-down rings. Platform can be equipped for either ⅜ or ¼ inch camera screw.

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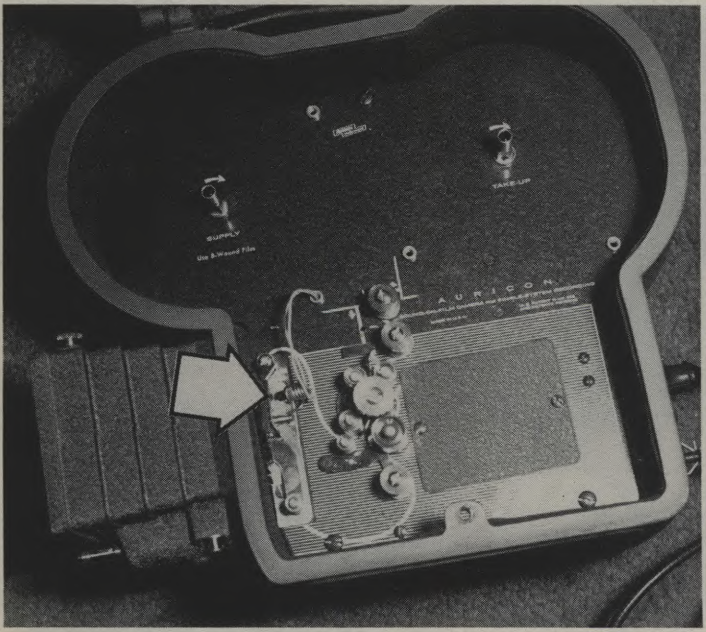


FIG. 1—In author's "double single" system of photographing and recording TV films, the Auricon "pro" camera is used. Small cue-light (arrow) is installed near gate to record guide line on film (Fig. 4).

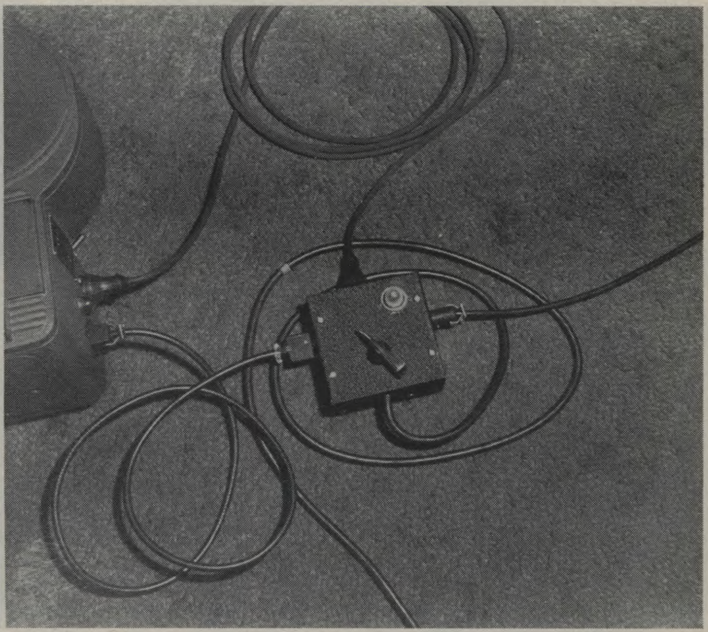


FIG. 2—Master control by means of which director of photography directs operation of multiple cameras, starting or stopping operation of any camera to effect variety of shots from different angles.

Economical TV Filming

Methods, such as the one described here, may be the answer to television's problem of good, low-cost film programs.

By JOHN H. BATTISON

Author of "Movies For TV"

THE CONTINUING swing towards film use in television is focusing attention on the economics of film making and producing comparisons between TV films and those produced by normal techniques for theatrical presentation. In general, television film producers at present are faced with the problem of making *good* entertainment films within very limited budgets. This has naturally resulted in many attempts to reduce film production costs by stealing from television methods and applying a modified TV system to film production. Working along these lines the author, during the course of his teaching classes in Films for Television at New York University, developed the system to be described in this article. A paper on it was also presented at the recent National Association of Radio and Television Broadcasters' Convention in Chicago.[1]

Most readers are familiar with the generally used method of making sound films, which involves the double system in which sound and picture are recorded on separate films. The single system, in which both sound and picture are photographed simultaneously on a *single* film, is also finding more acceptance; however in spite of its apparent simplicity and economy the system presents difficulties in editing which make it more difficult to use. The improved system to be described might be called in effect "the double single system," since it uses two

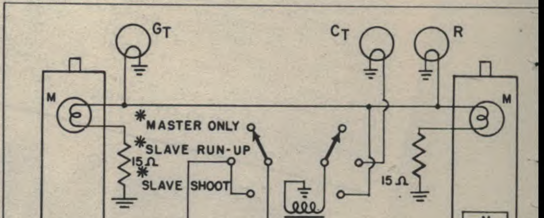

GT
CT
R
M
M
*MASTER ONLY
*SLAVE RUN-UP
15Ω
*SLAVE SHOOT
15Ω
M
MASTER CAMERA
SLAVE CAMER
60~ 110 V.
* MASTER RECORDING SOUND CONTINUOUSLY.
RED & GREEN TELLTALES ON CAMERAS
MARKER LAMPS INSIDE CAMERAS.

FIG. 3—Schematic drawing showing circuit connections of the master and slave cameras with relation to control box shown in Fig. 2. Control box contains transformers for pilots, etc.

single system cameras, each of which produces a combination sound and picture film.

Two Auricon "Pro" single system sound cameras are used. One is designated the "Master," and the other the "slave." In the system as presently used the Master camera runs continuously once the action commences. The slave camera is controlled by the director or, under his instructions, by the senior cameraman, from a small control panel which can be carried around or held in the lap. (Fig. 2.)

Each camera is modified by the addition of tell-tale signal lights on the top of the case and a recording light which makes a cue mark on the perforation side of the film (Fig. 4). The pressure pad behind the film in the gate has to be modified by drilling a hole with a No. 60 drill in the raised face of the pad so that light from a special focus type lamp mounted on the side of the gate, as shown in Fig. 1, can fall on the film between the perforations and register changes of camera. When the master camera is running the only telltale which is lit is the red one on that camera, and neither of the marker lamps inside the camera is on. When the director calls for action on the slave camera the red telltale on that one is illuminated, and the marker light in each camera goes on. Thus an exposed cue line is produced on the film in each camera *during the time that the slave is running.*

After the films have been processed

(*Continued on Page 281*)

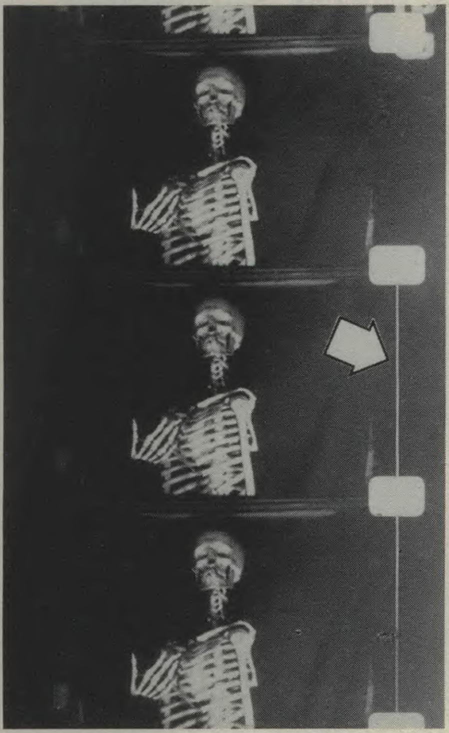


FIG. 4—Arrow points to cue line recorded photographically on edge of film exposed in the slave camera. This line aids editor when intercutting films made by both cameras.

Television Film Production

By LEIGH ALLEN

Karl Struss, A.S.C., recently elected a member of the Sylvania Awards committee, announces that the awards presentation will take place early this fall, in New York. Among the score of awards will be one for the best photography of a TV motion picture.

•

N.B.C.'s signing of former movie executive Henry Ginsberg as consultant, is seen as positive step of network to set up a strong video film production program.

•

Paul Ivano, A.S.C., has been signed to direct the photography of "Hollywood "Newsreels" for producer Erman Pessis. Reels are weekly 15-minute TV news releases.

•

Radio Corp. of America reportedly is working on a system of boxoffice television. Tradenamed the Skiatron system, it has been successfully tested over WOR-TV in New York. Other pay-as-you-see TV systems currently in stage of further development are Phonevision, and International Telemeter, in which Paramount Pictures have an interest.

•

Edward Cronjager, A.S.C., has been signed by Morris M. Wein to direct the photography of new series of telepix to star Charles Coburn and Spring Byington. Titled "Bed and Board," series started rolling at General Service Studios, Hollywood, June 27th.

•

Utilizing film to sell the rich potential of the Southern California TV market, KNBH recently completed a 17-minute color film, "The Gold Rush Is Still On," which will be exhibited across the country during July in an effort to graphically show Midwest and Eastern ad agencies the sales potential of the west coast region.

•

Charles W. Phelan, president of Films For Television, Inc., Beverly, Mass., announces the sale of its studio and laboratory to Harry Mamas, former Warner Bros. cameraman. Company produces "open end," syndicated TV shows on films.

•

THE KIND of filming assignment every TV newsreel cameraman hopes for but rarely gets, is enjoyed by WPIX-TV news cameraman Lester Mannix, seen here shooting a group of lovlies at Rockaway Playland, New York.

While interesting speculation continues as to whether TV is seriously cutting into motion picture theatre attendance, results of a poll recently conducted by the Minneapolis Star-Tribune reveals figures that indicate more families in the Minneapolis area owning television sets go to their neighborhood theatres than families without TV sets.

•

Speaking of surveys, still another conducted recently by a group of N. Y. banking houses reached the conclusion that TV has a long and rough road to travel before it becomes *the* mass entertainment medium of the nation. Said a spokesman:

"Television is still a groping business that will require from two to three years to reach the proper basis for analysis." A significant conclusion was that "nearly all top TV shows must be on film."

•

A.S.C. Directors of Photography engaged in photographing TV film productions during June, were as follows:

Phil Tannura, "Trouble With Father," Hal Roach Studio.

Walter Strenge, "Trouble With Father," Hal Roach Studio.

James Van Trees, "Groucho Marx Show," C.B.S.

Kenneth Peach, "Hollywood Wrestling," Jerry Fairbanks.

Benjamin Kline, "Fireside Theatre," and others, Green Film Corp.

Guy Roe, untitled series, Williams Productions.

Lester White, "Murder Rides The Night Train," Jerry Fairbanks.

Jackson Rose, "Buster Keaton Comedies."

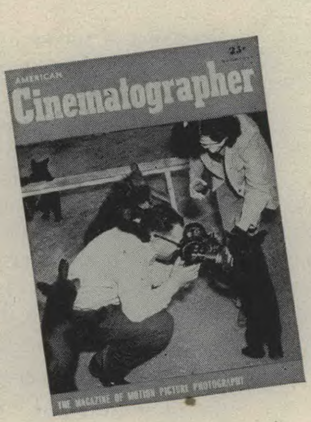
Elmer Dyer, "Craig Kennedy" mystery series, Adrian Weiss Prodns.

Edward Cronjager, "Bed and Board," Morris M. Wein.

•

NATURALLY IT SELLS...

reaching as it does the majority of cameramen and producers of motion pictures in the U. S. and 67 foreign countries



THE MAGAZINE OF MOTION PICTURE PHOTOGRAPHY

Theatrical • Television • 16mm Commercial • Amateur

ASK THE MEN WHO ADVERTISE IN A. C. —

Write any advertiser in this or any other issue and ask what kind of selling job American Cinematographer has been doing for him.

The Cine Amateur Today

Have U. S. amateur movie makers lost their way on the road to today's most rewarding hobby?

By ALVIN D. ROE

IS THE AMATEUR movie maker — the ciné amateur of the U. S. — losing interest in his hobby? Have increasing pressures of other interests, particularly television, greatly diminished his movie making activity? There is considerable evidence that the American amateur has not kept pace with his European brothers. Whereas British and French ciné hobbyists returned to movie making with increased zeal following World War II, Americans—having been appreciably slowed in their activities during war years—never have gotten back into stride.

This is borne out in the decreased sales of both film and ciné equipment. Considering our tremendous population growth and the fact the hobby, once having gained impetus—as it did in the early "thirties"—should have reached a tremendous volume by this time, the question remains "Why the lack of interest on the part of so many old time movie amateurs?"

There seems to be a number of answers to this question, but none quite so valid as that which follows a close survey of the amateur's activities in France and England, following end of the war. One clue to the European amateur's sustained interest lies in his long established practice of *working collectively*. The success of so many French amateurs in this respect is related by Pierre Boyer, editor of the French *Ciné-Amateur,* writing in *International Film Review* (No. 3, 1949). Reminding that the amateur cinema was born in France, whence it has invaded the world, he states:

"The amateur cinema, once brought within the range of individuals, was bound to thrive and prosper, but would achieve worthwhile progress only in so far as it was fostered and practised collectively. Groups were formed and ciné clubs were born, hesitant at first, but in time growing stronger. Rapid progress followed; the course was being set, the impulse provided, and today in France, the result is seen in the establishment of more than one hundred societies functioning regularly from one end of France to the other.

"It is from the organization of these (societies) that the strength of the French amateur cinema initially comes—an organization of spontaneous growth, modeled on a tentative framework that, when tested in practice, proved an unqualified success. Each society gathers into itself all the ciné camera owners in the district, welds them together, gives them a common aim and so gradually builds up the general structure of the French amateur cinema, based on the Federation Francaise des Clubs de Cinema d'Amateur."

Compare these basic aims of the French ciné groups with the average American movie club organization and we see quite a wide difference both in approach and in activities. The major criticism of so many U. S. ciné clubs is that they have been dominated by the few serious workers in their group, leaving the rest as little more than observers on the sidelines whose principal activity as far as their clubs are concerned, is attending meetings to view the pictures of their more ambitious brother hobbyists. There are exceptions, of course — but they are rare, indeed.

> **"Thanks to the cine camera, a medium of self-expression of unprecedented power has been put into man's hands. With the cine camera, every man can in accordance with his temperament reveal to us something of his personal philosophy, his reactions to life in the world and in society; he can take us inside his work and his activities; he can express in his own way, untrammeled by censorship or by commercial considerations, what he thinks, what he loves, and what he desires. For the language of the cinema is universal."**
>
> **—Pierre Boyer**

Boyer, who is International Technical Adviser to the influential Union Internationale du Cinema d'Amateur (UNICA), goes on to say:

"Abroad—especially in Europe—similar movements have seen the light of day. Their present importance depends on their relative enthusiasm. Spain, Italy, Norway, Luxembourg, Denmark, England, Czechoslovakia, Poland, Germany and many other countries constitute the present UNICA organization. UNICA organizes each year in a different country the *Congres International,* and the *Concours International.* This "Davis Cup" (competition) of the amateur ciné world has been offered every year—war years excepted—since 1934, when the union was founded on the initiative of a few pioneers. France has, from the beginning, consistently shone in this sphere, carrying off several years in succession the most sought-after prizes or the first place classification by nations.

"The position that France has won is due in far greater measure to her understanding of the spirit of amateur cinematography than to purely technical successes. We must define this spirit.

"There is no doubt that the snapshot-album way of practicing ciné photography has an absorbing interest. It is charged with great emotion, having as it does the power to create the illusion of life, and to enable us to follow, in a progression too soon completed, the birth, life and disappearance of our children and dear ones. In this it must be admitted, lies its principal attraction for individuals.

"But is that the only attraction? By no means. Thanks to the ciné camera, a medium of self-expression of unprecedented power has been put into man's

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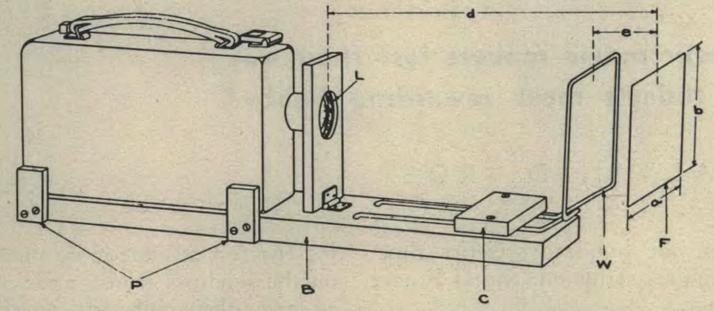

DIAGRAM shows construction details for a simple device for filming ultra-closeups. Adapted to any cine camera, the amateur can achieve high-magnification cinematography otherwise attainable only with very expensive optical equipment. Construction details are explained in the accompanying text.

Nature Photography With Any Cine Camera

Simple, easy-to-build gadget opens up new filming horizons for the cine amateur.

By JOHN FORBES

THE MOST IMPORTANT problem in applying the ordinary cine camera to nature photography is that of focusing on small objects at close range. The average cine camera lens will focus on objects from infinity down to two feet. It is not calibrated for shorter distances, due to the fact that depth of focus decreases rapidly as the plane focused on approaches the camera, and it becomes impractical to estimate the subject-distance accurately enough to insure sharp focus.

Moreover, the finder systems on most cine cameras are not valid for very short subject distances, because of the displacement of the finder axis from the camera lens axis. Overcoming these afflictions will permit the application of the cine camera to nature photography.

Classified below according to focusing distance and field size are four subject classes in nature photography:

1—Normal objects at normal distances, which can be photographed without additional equipment.

2—Small objects normally examined at about ten inches. (The majority of subjects fall in this class.)

3—Small objects which cannot be closely approached—for example, birds. (Except with telephoto lenses.)

4—Very small objects normally examined through a magnifying glass.

The second and fourth classes — normally beyond the range of cine cameras—can be photographed successfully by means of two auxiliary attachments to the camera: a) extension tubes, or b) the use of an auxiliary lens and the "focal frame" device, which we shall presently describe here. Being less costly than extension tubes and because it provides for accurately setting focus between object and lens without the need for sighting through the taking lens—which obviously is impossible except with a few cameras such as the Cine Special and the new Pathe-16 — the latter method is recommended for the average exploring or neo-scientific cine cameraist.

The "focal frame" may be easily constructed by the average amateur in his home workshop. Shown in diagram above, it consists of a wooden base to hold the camera, the auxiliary lens, and the wire frame which affords a means of centering subject with camera and at

(*Continued on Page 274*)

TABLE I

Depth of Focus

Radius of disk of confusion=0.0025cm.

Subject distance for 25mm lens with supplementary lens	Overall Angular Magnification	Magnification on film*	Depth at f.5.6	at f.1.9*
Inches	x 0.5		cm	cm
20	x 0.5	x0.05	24.0	8.0
10	x 1	x0.1	5.8	2.0
5	x 2	x0.2	1.4	0.5
2	x 5	x0.5	0.23	0.08
1	x10	x1.0	0.057	0.02

* These data apply to camera lenses of all focal lengths.

TABLE II

Data for 16mm cameras with 25mm lenses, and 8mm cameras with 12.5mm lenses.

Photographing Distance d	Field Size bxa	Displacement e	Supplementary Lens L	
Inches	Inches	Inches		
39	12x16	6	1.0 dioptre	Spectacle lenses
19½	6x 8	3	2.0 dioptre	
13	4x 5¼	2	3.0 dioptre	
11¼	3⅜x 4½	2	3.5 dioptre	
10	3x 4	1½	4.0 dioptre	
8	2⅜x 3⅛	1	5.0 dioptre	
			150mm focal length	Camera Anastigmats
			100mm focal length	
			75mm focal length	
			50mm focal length	
			25mm focal length	

The New Improved
SPECTRA COLOR DENSITOMETER

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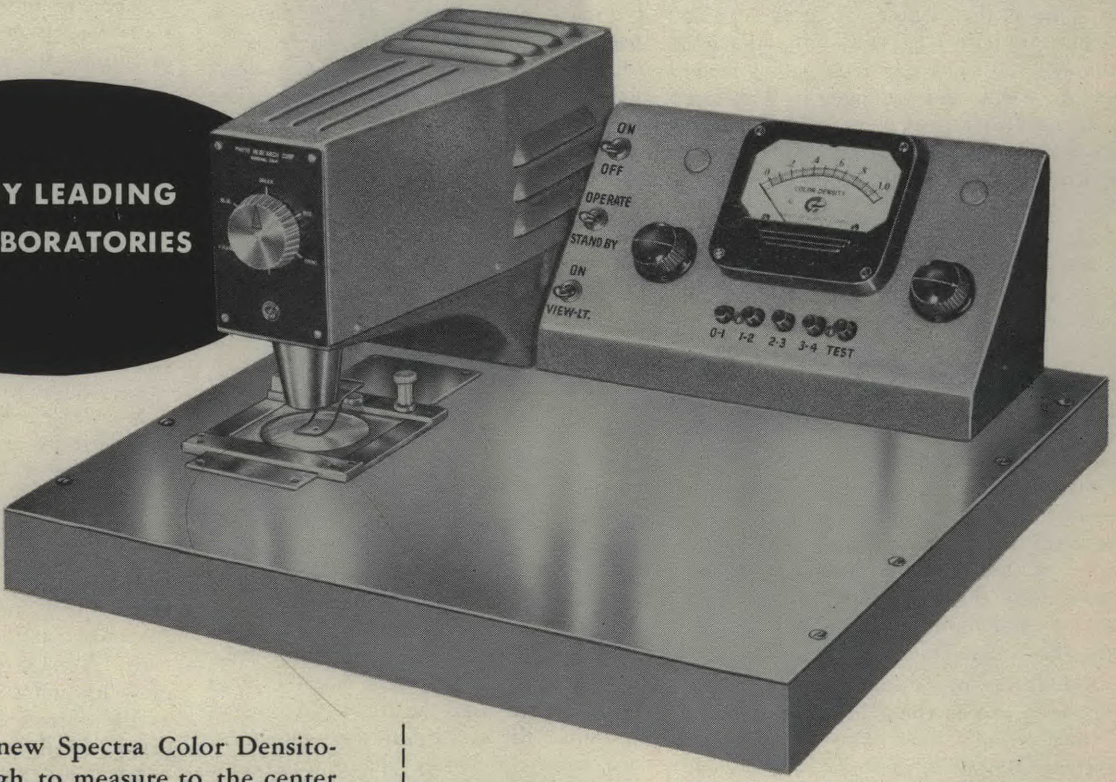
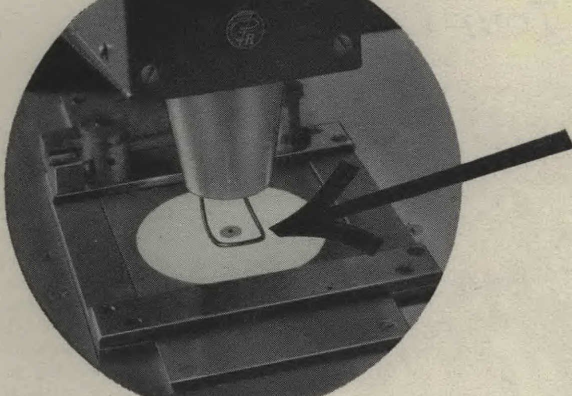


The throat of the new Spectra Color Densitometer is deep enough to measure to the center of an 11x14 plate or film...yet convenient for production control of both 16mm and 35mm motion picture processing.

Linear density scale .0 to 1 covering full scale length with additional push-button ranges of 1 to 2, 2 to 3 and 3 to 4.

Filters furnished to read the Yellow, Magenta and Cyan densities.

Reads Color and Black & White densities—defused visual and print densities. The final answer to processing control.



The illuminated plate of the Spectra Color Densitometer makes it easy to center the area where the density is desired to be read, whether it be a step in a test strip or a small spot in a picture area.

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NATURE PHOTOGRAPHY

(*Continued from Page 272*)

the same time automatically position the camera at the right distance from subject for sharp focus.

The details of a preferred construction are as follows: The distance D at which the object should be photographed is the same as the distance from the eye at which the object is held for viewing, provided the field size resulting is large enough. Field sizes are given in Table 2. A distance of ten inches has been found satisfactory for many small objects, such as flowers, small animals, large insects, etc.

The proper supplementary lens can be mounted easily with cellulose cement in a wooden upright, using a stepped circular hole made by an expansion bit. This lens is mounted close to the camera lens, and so that its center is on the camera lens axis. A decentering error of 1/16-inch is not objectionable. The wire frame is not placed exactly at the plane of sharp focus, because it has been found impossible to surround all objects with the frame. It is therefore set 1½ inches closer to the camera. Experience has shown that the estimation of the field position and limits offers no difficulty with this arrangement.

The frame of ⅛-inch diameter wire is made to exceed the field limit by about ¼-inch on all sides. The ends of the wire are secured to the base B, and cleat C holds the frame in place. The frame is bent so that its geometrical center is on the camera lens axis. If one side of the frame appears in preliminary pictures, the frame may be shifted or bent as required. In order to attach the camera to the base B a hole is drilled for a screw (e.g. a ¼-inch machine screw will serve) to engage with the tripod bushing of the camera. This hole is so placed that the camera rests against the blocks PP to assure replacing it exactly. The blocks PP are placed on the side shown to permit easy winding and reloading. This will vary, of course, depending on the make of camera to be used.

If desired, the supplementary lens mount may be hinged at the base, to permit removing it temporarily for distance photography, with which the frames does not interfere.

The accessory known as the "Cine-Kodak Titler" can be used in the manner outlined. The easel which takes the title card frame, does not show in the picture. The focus comes exactly at the frame, and the field size is 2½ x 2⅜ inches. This is rather small for most subjects.

The supplementary lens—which is used in the support L—is not only the simplest method of photographing objects at short distances, but it also has a decided advantage, since the indicated "F" stop of the camera lens remains valid, even for very short distances. Thus, by placing the auxiliary lens in front of your camera lens, there is no need to increase the "F" stop above that determined by a meter reading when the camera lens alone is used. The same aperture setting is used for the photography of small objects at close range as for distant objects; and color photography is quite practical, providing the supplementary lens is large enough in diameter to avoid cutting off the marginal rays.

When the lens is focused for infinity, the focal length of the supplementary lens required is equal to the distance of the supplementary lens from the object to be photographed. This is independent of the focal length of the camera lens. The supplementary lens may be regarded as creating a virtual image of the object at infinity, for which the camera lens is focused. For object distances down to eight inches, simple lenses from dime-store spectacles have proved satisfactory, even when camera lens aperture is set at f/1.9. Of course, the better the quality of the supplementary lens, the better the photographic result, and for highly accurate work, such lenses as the simple spectacle lenses of the Bausch & Lomb "Celex" double convex type are recommended. Still another is the theoretically preferable plano-convex type, mounted with the plane side facing the object to be photographed.

Table II shows the size in diopters of supplementary lenses required for filming objects at distances from 8 inches to 39 inches, and also shows the field size and depth of focus for each distance and lens combination.

For subject distances shorter than eight inches, a camera lens of the required focal length should be used as a supplementary lens. This should be mounted with its back facing the object. Either cine or still camera lenses of any focal length may be used; antistigmats, of course, are preferable.

"HOUSE ON TELEGRAPH HILL"

(*Continued from Page 261*)

Director of Photography Ballard considers the feminine star of this film, Italian actress Valentina Cortesa, "the most mobile beauty" of any glamour girl he has photographed including his ex-wife Merle Oberon. "She is the most fascinatingly mercurial beauty in films," he explains. "She looks like a Botticelli Madonna one minute — a gamin, the next—and a sensuous voluptuary in another moment." (He also described Linda Darnell's as "the most flawless face," Gene Tierney's as "the face with the most intriguing bone structure and eyes," Ava Gardner as "the girl with the most beautiful lips," and Jeanne Crain as the actress he'd like most to photograph in color.)

Ballard, who hails originally from Miami, Oklahoma, and is justly proud of the fact that he is part Cherokee Indian, got his start quite by accident in the motion picture industry. Describing himself as a "collegiate playboy" with a taste more for the social whirl than for study, he had managed to get himself "kicked out" of the Universities of Colorado, Oklahoma, Pennsylvania and

Cine Tour On Wheels

For a movie making adventure in Iceland, Robert C. Davis, vice-president of 8-16 Home Movie Makers, Kansas City, Mo., fitted out this motorcycle with equipment compartment for holding camera, tripod, film and accessories. Davis, who sailed from New York on May 30th, will shoot 5,000 feet of 16mm Kodachrome of Icelandic wonders, including island's recently reactivated volcano.

Washington—surely some sort of record in itself.

Since he was given up as academically hopeless, he was banished to the "wilds" of Pasadena, California, to study the lumber business first hand, in a local lumber yard. Becoming enamored of a script girl who worked at the Paramount studios, he used to go into Hollywood evenings and brazenly "crash" the lot to be near his lady love. This was back in the days when sound movies were just beginning. The Paramount sound stages had recently burned down, so a great deal of shooting was being done outdoors at night.

Ballard led a double life—studying the lumber business by day and courting his inamorata on the Paramount lot at night. During shooting, he would often be mistaken for one of the crew and be told to "tote that line" or "lift that bale." Finally, someone thought that he ought to be paid for all this work, and offered him a job on the camera crew. The stipulated salary was hardly enough to keep him in caviar, so he held out until they agreed to pay him the top salary on the crew. Lured by promises of the fame and riches to be had as a director of photography, he aimed at that goal and actually achieved it in less than five years.

He got his early training under the great Josef Von Sternberg, one of the top camera geniuses in movie history, and served quite an apprenticeship, grinding out westerns before he built his reputation for glamour photography. After he married actress Merle Oberon, he declined studio contracts and filmed only her pictures. It was during this period that he shot such films as "Night Song," "Berlin Express," and "The Lodger"—the latter which many consider to be the most beautifully photographed film ever turned out by 20th-Fox.

Ballard, who has always considered color photography less of a challenge than black and white, has avoided Technicolor assignments. He now looks forward to shooting a film in color, hoping that he will be able to achieve a more subtle result than the usual "candy box" brilliance which he considers objectionable. Long known as a "woman's photographer" because of his expert lighting of filmland actresses, he is tired of the appellation and longs to do a western or a war film with an all-male cast. But whatever he films, you can bet that, like "House on Telegraph Hill," it will be an outstanding job of photography.

Famous motion pictures of the early days in film history are being added to the study collection at George Eastman House, Rochester, New York.

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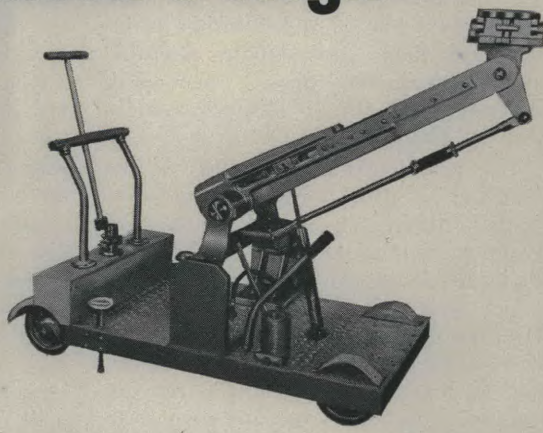

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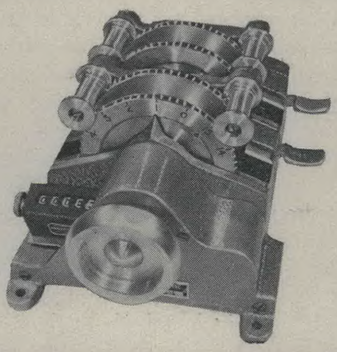

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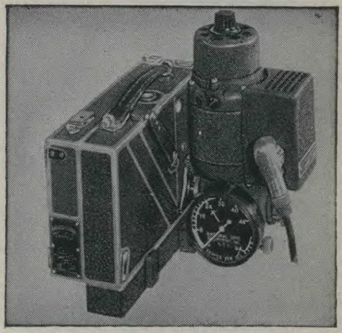

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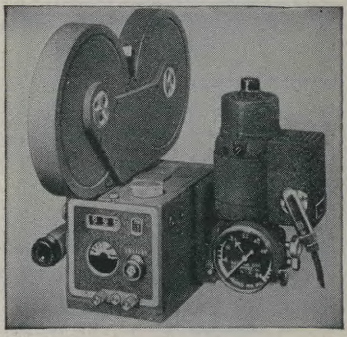

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HUSBAND AND WIFE CAMERA TEAM

(*Continued from Page 263*)

menaced by grizzly bear, the charge of a bull moose, stampeding caribou and assorted perils in stalking mountain sheep and goat amongst high crags. They have shared every hazard and hardship on innumerable field expeditions for scientific and entertainment films. Their peak achievement as Walt Disney's camera team is "Beaver Valley."

The assignment took months of patient and resourceful watching and continuous filming in remote regions of Montana and Minnesota. Together with the intimacies of beaver family life in the lodges on their self-made lagoons, the Milottes got remarkable shots of land otter, most playful of all wild animals, and of many other creatures ranging from wildfowl and frogs and racoons to coyote, moose and salmon-fishing black bear.

Those who have seen "Beaver Valley" will agree that the scenes are not haphazard shots of wild creatures. They have continuity and tell the dramatic story of courtship and battle, birthing and survival in terms often of strange human parallel. Most remarkable of all is the capture of comedy in the antic of bird and animal in their domestic and social life.

The Milottes spent two months searching for a location for shooting scenes for "Beaver Valley." This they finally located in Montana — twenty miles from Anaconda. Here they came upon picturesque ponds where beavers had set up four "houses" in the bank of a channel connecting two ponds. Living in a trailer on the location, the Milottes spent 4 months here and thus were able to photograph the beavers in their progressive activities through late spring, summer and autumn.

The success of the "Beaver Valley" filming assignment, according to Alfred Milotte, was a matter of knowing the animal, his habits and habitat — then trailing and photographing him. Before undertaking the assignment, Milotte did considerable research, scanning public library bookshelves for whatever pertinent information he could gather. The most helpful information, however, came from Montana State forestry experts. They took him out into the wilderness and taught him how to look for such indicators as beaver droppings, scents, etc. They showed him how to transplant natural beaver scents to attract the animal to locations best suited for photography. At one time, Milotte even tried limburger cheese as "bait" on the theory that most rodents like cheese, and beavers being members of the rodent family, might likewise like cheese. The theory failed to work out, however.

Once the Milottes found a likely beaver location, the next step was to set up the camera with an unobstructed view of the nearest aspen trees, which the beavers were expected to attack and fell in their nocturnal dam-building operations. Time and again the camera was set up in such locations only to have the beavers fail to appear.

One of the first things the Milottes did, once they found a likely beaver habitat, was to erect a high platform for a camera blind. This was constructed mainly of two-by-fours. One night, beavers cut down one of the two-by-four supports and carried it off to the site of their dam.

In capturing the dam-building, food-providing and family life of the beaver, the Milottes on their riverside camera setup consumed innumerable bags of Crackerjack, whittled and knitted and otherwise whiled away the tedious hours, week after week, from spring thaw to winter's first snowfall, in order to complete the life-cycle of the animal. The cautious beaver chooses to work only a brief hour each day, and this just before sundown with its rapidly failing light. More than 90% of Milotte's filming was done at dusk, after sundown. Using mostly a 4-inch telephoto lens on his Cine-Special, such shots were made at f/1.4. Unless inadequate light prevented, Milotte used two filters over his lens and Commercial Kodachrome film. One filter was the usual conversion filter and the other the correction filter recommended by Eastman.

He used a Weston exposure meter consistently and didn't try to correct for the late afternoon light. The use of Commercial Kodachrome, he says, made possible a lot of difficult shots in poor light.

One of the highlights of "Beaver Valley" is a sequence of underwater shots of beaver and otter. These were made possible through use of a crude but nevertheless effective homemade submarine camera box, constructed on the site.

One of the demands Walt Disney makes of those filming material for his True-Life Adventure films is that nothing but authentic nature must get on the film. No phoney emphasis, camera trickery or false editing must "manufacture" or distort the natural fact. And neither time nor expense is permitted to interfere with the expert labors of the cameraman.

Disney makes an interesting comment on the function the camera plays in picturing wildlife for his featurette productions, as contrasted to his creation and comical use of animated fable animals:

"In the authentic drama of wild life," he says, "the entertainment provided by the factual camera must approximate the excitement and emotional effect we get through our animals of fable — like Mickey Mouse, Donald Duck, and the ones created for 'Bambi,' 'Dumbo,' 'Pinocchio,' 'Song Of The South,' and 'Cinderella.' To employ film and camera with the comprehension of the very spirit of nature behind all its exciting activities is in itself an art akin to the arts of animation."

Alfred Milotte's qualifications are strikingly revealed in his spectacular lensing of the beaver and fellow creatures of the Montana swamplands in nature's own colors. In addition, he has an acute sense of the picturesque and of unposed drama in the battle for existence which spells entertainment as well as information on the screen.

Today, the Milottes are in the field again, shooting the life story of some of North America's biggest mammals for a forthcoming True-Life Adventure. While on these assignments, Alfred Milotte is always on the alert to pick up extra footage as stock shots which Disney can use in supplementing his regular feature output of animated cartoons.

Thus these explorations into the realm of nature, to be followed at the rate of one or two a year, will keep the Milottes—both Alfred and Elma—busy for sometime to come.

"It's a wonder we're still married, after all the trials of trail and camp we have endured," said Elma, "but Al is a wonderful guy to go on trips with and we know how to deal with our problems in a calm and reasonable way."

And besides, both *love* their work. How can they fail?

STANCIL-HOFFMAN MAGNETIC RECORDER

(*Continued from Page 264*)

wow-free recording is a balance tight-loop filter of special design which minimizes flutter. The powerful torque motors of the recorder enable the machines to handle reels of magnetic film up to 2100 feet capacity. According to the manufacturer, the S5 is the only recorder of this film capacity offering the advantages of rewind and reverse fast forward dual-speed.

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assembly is of plug-in construction, affording instant replacement without the need for direct factory attention. Azimuth or head alignment adjustments are accessible from the front and the heads are rigidly locked in correct position, although easily moved and adjusted, when necessary. The alignment, once set, cannot shift with normal handling and use.

A footage counter operates both forward and reverse, adding or subtracting the amount of film passing through the recording head. Where desired, remote footage counters may be installed and connected to the interlock wiring system. All functions of operation of the recorder are relay controlled, so it is a simple matter to add any number of remote controls both for recording and reproducing.

Stancil-Hoffman S5 units may be had in portable carrying cases, for rack mounting, in rack cabinets, or in consoles. Wiring of the units is independently terminated so that the cordage may be rearranged, or units conveniently relocated at any future time. A typical rack-mounted installation is to be seen in the accompanying photo showing Stancil-Hoffman equipment in the recording department of the Moody Institute of Science. Of interest is the fact that in order to use space most advantageously,

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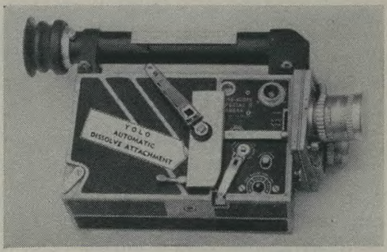

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S5 units are generally operated vertically; however, the equipment may be operated in either plane—vertically or horizontally.

Another interesting fact is that with each Stancil-Hoffman recorder, there is included without extra charge an S-H model BE1 bulk magnetic film eraser with capacity for reels up to 16 inches in diameter. This accessory makes it possible to erase full reels of recorded film without having to unwind and then rewind them. With the reel placed on the bulk eraser, a switch is thrown and in the space of seconds, powerful demagnetizing forces clear every inch of the film of all recording—make it ready for instant use again.

For the technically minded, here are some additional facts concerning Stancil-Hoffman recorders. Frequency response on the 16mm equipment is plus or minus 2 DB from 45 to 7500 cycles; with 17.5 mm film, the rate is the same up to 15,000 cycles. Flutter or wow, with 16mm film, is less than 0.2% RMS; with 17.5 mm it is less than 0.1%. The 16mm magnetic film equipment affords a playing or recording time up to one hour; and while this is reduced to 24 minutes for the 17.5mm recorder, this capacity may be enlarged on special order.

The playback signal-to-noise ratio and distortion is the same for 16mm as for 17.5mm—maximum total harmonic distortion is 1.5% from full normal level. Signal-to-noise ratio will be at least 50 DB on playback.

Among the well-known concerns who now have in use or on order Stancil-Hoffman S5 recorders are: King Film Productions, Atlanta; Encyclopedia Brittanic Films; Ambassador Films, Chicago; Great Commission Films; Sampaguita Pictures, Inc., Manila; Univ. of Minnesota; Univ. of Southern California; Music Corporation of America; Producers' Service of Hollywood; KLAC-TV; Motion Picture Service Co., San Francisco; and Sovereign Film Studios, Canada.

Base price of the S5 recorder is around $2142.00—a complete system costs about $2500.00, less microphones—all FOB Hollywood. Stancil-Hoffman film phonographs are also available as companion equipment.

VIEWFINDER GROUND GLASS

(*Continued from Page 262*)

was the silent aperture, and in addition there were two sets of center lines, horizontal and vertical.

During this time the Mitchell camera became the standard of the industry, and the Society of Motion Picture Engineers published the standards of the full (silent) aperture area and the sound (Academy) aperture with specifications for proper use.

The next step in new development occurred during World War II. The Signal Corps Photographic Center in New York City had under its direction approximately two hundred camera crews. These crews operated throughout the world and made educational, training, documentary and newsreel films. The productions were as a matter of course photographed on standard 35mm film. However, the majority of release printing was done on 16mm film for ease of distribution, handling and showing. This introduced a new problem and development. When 35mm film is reduced onto 16mm film a certain amount of the picture area is cut off (lost) in the process. An added loss or cut off is caused by the aperture of the 16mm projector. Consequently "cutting off" titles, heads, and other important details and information at the sides and top and bottom occurred by the time the reduction print was viewed on the 16mm screen. At the beginning an attempt was made to make allowances for this discrepancy by sending out directives and diagrams to the cameramen in the field asking them to compose for this masking. This method proved unsuccessful. It was seen that a new ground glass for the camera was necessary, indicating a 16mm cut-off line. This development was accomplished jointly by the Camera Branch of the Signal Corps Photographic Center and Mr. Leopold E. Greiner of the Greiner Glass Industries Company. (See illustration No. 2.) The 16mm cut-off viewer ground glass was widely distributed in the armed services and very satisfactorily solved the problem. This ground glass has also been in considerable use by civilian producers since the close of the war.

The successful development of this ground glass led the Signal Corps Photo Center and Greiner Glass Industries to experiment with other types of ground glasses for special purposes. One of the glasses developed and produced was for special camera effects. This ground glass subdivided the projection aperture into 64 squares. (See illustration No. 3.) This was very useful in aligning titles, matts and special effects, becoming a useful adjunct to a growing line of viewfinder ground glasses.

The advent of television introduced still a new problem to the motion picture cameraman. Films that were designed to be shown on television home receivers were subjected to a new type of masking. Television sets in the beginning used the round (circle) tube. Later, set manufacturers using round tubes, masked the top and bottom (flat), leaving the sides curved. Eventually the full rectangular tube was developed, and it is this tube which is coming more and more into wide use for practical purposes. It was obvious that with the variety of TV set masks, important elements and information of the picture and title could easily be cut off and lost before being seen on the television home receiver, because no two home television receivers transmit picture areas alike, and also because no practical standards and practices are now at hand for adjusting the feature of home TV receivers. Again a special viewfinder ground glass was developed, this time for television program film productions.

Greiner Glass Industries Company used the TV alignment specifications of The Society of Motion Picture and Television Engineers and designed a TV viewfinder ground glass adhering strictly to the specifications as set forth: a TV alignment ground glass scribed with three rectangles, representing (1) a standard camera aperture size .868" x .631", (2) a TV projection aperture which is narrower by approximately 3% on the sides of the frame (rectangle) than on top and bottom, and (3) an active picture (home receiver tube) area aperture, representing 80% of the TV pro-

(ADV.)

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jection aperture. The 80% area is important when titles within close areas or confines are photographed, and will remain an integral part of the ground glass. The 80% active area (3) is useful in the preparation of film carrying important information such as advertising copy and illustrations. It has become a general practice to "overshoot" this active picture area (3) by approximately 3/5 of the area between (3) active aperture and (2) TV projection aperture, as the largest area to be filmed for TV production. Tests by the Society of Motion Picture and Television Engineers indicated that the 80% area is the area which can be counted upon to reproduce on the average home television receiver tube.

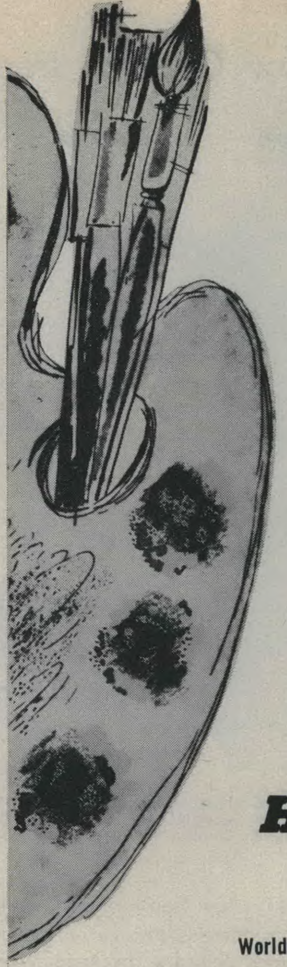
This TV viewfinder ground glass has been most useful to cameramen and producers who use it and abide by its standards in making films for television that will be seen to their best advantage on the average home TV receiver set. (See Fig. No. 4.) Greiner Glass Industries Company made exhaustive tests over a prominent New York City TV network and has proven by means of the station monitor board that nothing has been left to chance and guesswork. The engineering staff of the network agrees that when the scope and purpose of the pattern is followed, good resolution and well reproduced films for TV are the result.

The title of this article "The Evolution of the Viewfinder Ground Glass" is only partially accurate. Perhaps rather than the word evolution we should say that the viewfinder ground glass, like Topsy, "just growed." At any rate, it has come a long way from a plain piece of glass with a frosted surface, to an extremely accurate, highly valuable tool of the cameraman.

NOTE: Joseph V. Noble, the author, served with Signal Corps Photographic Center at Long Island City, New York, during World War II, and was responsible for much of the Corps' development work. He was connected with Philco research and development prior to World War II.—ED.

Festival Photo Center

Cine fans who travel to England this summer to view and film the Festival of Britain will find that Kodak Limited has opened a special Photographic Information Bureau at Kodak House, Kingsway, only a short walk from the Exhibition. Center will be staffed by experts qualified to help with every photographic problem. The Center will be open from 9 to 5 daily.



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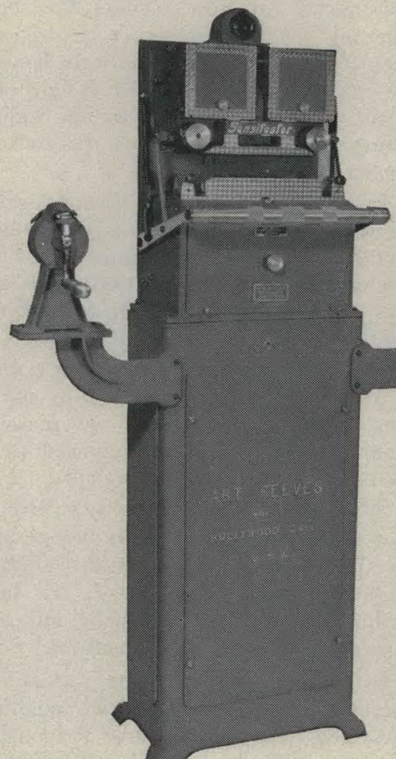

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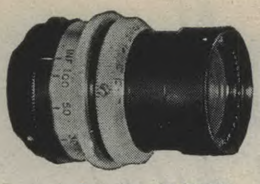

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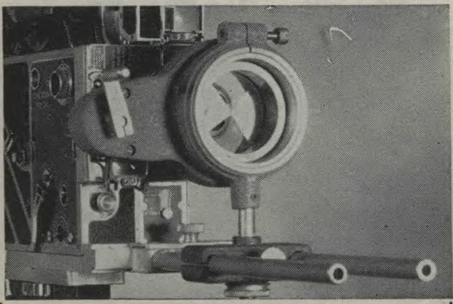

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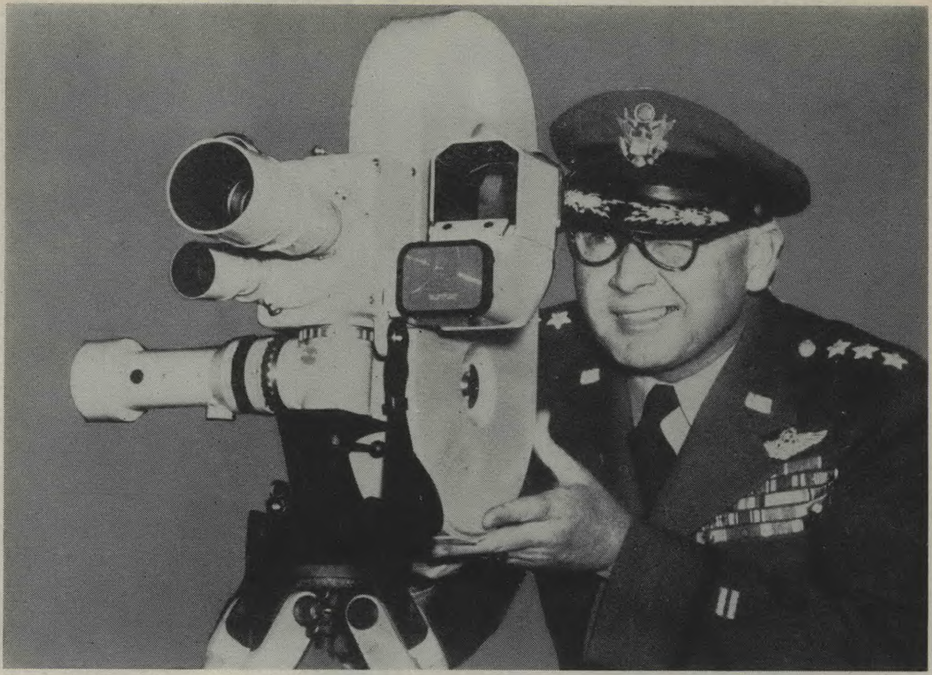

NEW AIR FORCE camera manufactured by Bell & Howell Company. Known as the A-6, camera uses 35mm film, weighs only 30 pounds. Checking its unique viewfinder is Lieut. Gen. B. W. Chidlaw, U.S.A.F. Camera has already recorded combat operations in air in Korea.

DETAILS of a new combination aerial combat-reconnaissance camera have been announced by its manufacturer, Bell & Howell Company of Chicago. Designated Type A-6 by the Air Force, it is a light-weight, portable 35mm motion picture Camera designed to Air Force specifications by the company in cooperation with Air Force engineers. Substantial Air Force orders have been received for the camera. It has already recorded combat operations in the Korean air war. Mounted in TF33 aircraft, flying behind rocket bearing fighter planes, the camera records the rocket's impact on the target area.

Installed in the nose of reconnaissance aircraft, the camera records enemy-held terrain and fortified positions. The films are later evaluated by intelligence officers to assist in working out tactical operations.

A unique feature of this 35mm camera is a pre-threaded external film magazine. The magazine may be removed from the camera and replaced with another in ten to fifteen seconds.

The camera, installled with an electric motor drive in aircraft, may be operated by the pilot in reconnaissance fighter planes by remote control. A red light flashing on the instrument panel indicates that the camera is taking pictures.

In heavier aircraft the camera is operated by another crew member. Mounted on a movable tripod-like bracket, it photographs bomber formations and tactics of attacking enemy.

The camera is also used on the ground for taking motion pictures of aircraft landings and take-offs, and for photographing tests of experimental aircraft.

The camera is designed to operate at the temperature extremes of a hot tropical run-way or the sub-zero cold of an altitude of 40,000 feet.

To keep the film from stiffening and the lubricant flowing freely at below zero temperatures, a "built-in" film magazine heater is provided. It is equipped with electrical heating coils, thermostatically controlled.

The camera's new type viewfinder was designed especially for aerial combat use. A moving object is easily framed and followed with the bright finder. The finder image seen by the cameraman is in focus and superimposed upon a completely unobstructed field of view.

A three-lens turret makes it possible to shift from a normal to a telephoto lens with ease. Lenses with focal lengths from one to ten inches are supplied with each camera and any three may be used on the turret at one time.

Movie Collection

Seven hundred films dating from 1893 to the early sound films have been collected by James Card, assistant curator in charge of motion pictures at the George Eastman House, Rochester, N. Y. Most countries producing films are represented in the collection. Earliest film in the collection is Thos. Edison's "Fatima," produced in 1893.

ECONOMICAL TV FILMING

(*Continued from Page 269*)

they are run through a synchronizer together, and whenever a marked portion of the master film is found the corresponding marked section of the slave film is spliced in. Since the two films each carry the same sound tracks (single system sound) and the marker lamps are positioned so that the cuts occur at the same relative positions on each film, no sound is lost and the presence of the 26-frame sound lead does not introduce any problems in sound or picture editing. Thus, if only one print is required, the spliced master and slave films can be used on the air. Or, if copies are needed, they can be made by printing from the "composite" print.

This is a simple system and many refinements can be added. For example, the directors panel has a three-way switch with "Master Run," "Slave Run-up," and "Slave Shoot" positions. In the first position only the master camera runs; in the second, *both* cameras run, but the marker lights do not come on. This switch is used to allow the slave to come up to speed before cutting the action to it. In the third position the marker lights come on and the slave telltale goes on. Of course fades could be made in the cameras by adding synchronized irises to them.

When using this system film production requires a certain amount of preparation on the part of the producer or director. If, for example, a film of a dance band is to be made, it will very likely be necessary to include long, medium, and close-up shots of it as well as the vocalists. In the usual method, if pre- or post-recording was not to be used, it would be difficult to get intermingled long shots and close ups without starting and stopping the orchestra. In the double single system the master camera is set for an establishing shot with perhaps a wide angle lens. After the desired footage has been exposed on this scene the slave camera is started from a closeup position of the orchestra leader. While the slave camera runs the master is prepared for a medium shot of the brass section by selecting a one-inch lens and lining up the shot. On cue from the director, the slave camera stops and the master camera (which has been running all this time and recording both sound and picture—although this footage is only for protection in case anything went wrong with the slave shot) resumes operation and is the active camera. Of course, during the time that lenses are being changed on the master camera the picture image is of no use, since it

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The next shot may call for an extreme closeup of a pretty singer or some other business, which requires a different lens or camera position. By cutting the action to the slave camera at the proper moment a perfect transition to the new shot can be made and the film splice will be no more difficut to make than an ordinary silent one since the sound lead is automatically taken care of in the duplication of sound track on the two strips of film.

Another example of this use might be a conversation between two people. If only one sustained angle was used for a long talk it would become quite boring for the audience. On the other hand, were ordinary single system used, where the camera position would have to be changed after each line of dialogue, this would require greatly increased shooting as well as posing many problems of sound matching and synchronizing. However, by using the two cameras and cutting from one to the other—in rhythm with the dialogue, only a very short time would be required to shoot the sequence if the actors knew their parts and delivered their lines without a fluff.

A saving of film could also be effected if the master camera ran intermittently also, in the same manner as does the slave. But the amount of film saved would not be very great unless very long sequences and productions were attempted. It would be a relatively simple matter to insert an automatic delay switch to bring the cameras up to speed before making the cuts.

Although the Auricon "Pro" was used for this experiment, and of course worked very well, it could also be applied to the "Cine Voice," or the newer Berndt-Bach "Super Pro." In fact, the latter with its 33-minute film capacity would be ideal for use in this system.

Note [1] See also Tele-Tech, page 37, June 1951.

Note [2] The author is also author of *Movies for TV* published by Macmillan, N. Y., December 1950.

DRAMATIC DOCUMENTARY APPROACH

(*Continued from Page 266*)

or cutting. For this reason he naturally expects major studio excellence in any picture he takes time to view, even though it be a commercial or documentary film. To meet the demands of both client and audience, we have developed an approach that combines the technique of the photoplay with the specific requirements of the commercial film."

The latest Carillon production, a 16mm color film for U. S. Gypsum titled "Within These Walls," is an excellent example of this dramatic documentary approach. A four-reel feature depicting the development and use of mineral wool as an insulating material, the film goes far back into history to reproduce scenes of outstanding beauty and audience appeal. Much of its success is due to an excellent script slanted to entertain as well as to inform. The result is a picture which, without obvious commercialism, does a subtle job of selling the sponsor's product while at the same time entertaining the audience.

"Within These Walls" traces man's need for a perfect insulating material back as far as the Roman occupation of Spain, when cork was widely used as an insulating material. We see also how similar problems were solved in cavernous medieval castles and in peasant huts, in Indian pueblos, in Eskimo igloos, in a Welsh laboratory, and in an American home of the Victorian era. All of these sequences are staged in elaborate settings with a great deal of production value.

Perhaps the most exotic set is that simulating a Hawaiian village during the days of Captain Cook. Complete with jungle and native huts, this elaborate set was constructed on the sound stages of the Charles Chaplin Studios in Hollywood, as were most of the other settings. The scenes filmed in this village were skillfully intercut with vivid footage of an erupting volcano to emphasize an important story point.

In addition to these historical settings, the script called for two modern homes (each with a practical kitchen laid out by the kitchen planning division of the Southern California Gas Co.), a modern laboratory, manufacturing locations and home construction locations. In all, thirteen major settings were used, both on the stages and away from the studio.

While the film was produced on a substantial budget, the finished product looks as if it cost twice as much as it actually did. This effect was produced primarily by means of intelligent planning. No detail was spared to give the film the utmost production value. In addition to the elaborate sets, a highly trained major feature production crew was used, a cast of 62 principals, 35mm sound by Glenn Glen, and a complete original musical score. In short, every element of production was the very best that Hollywood production facilities had to offer.

Since the script called for approximately 60% narrated sequences and 40% direct dialogue, advance planning made it evident that much time and costly stage rental could be saved by having two separate units shooting simultaneously on the stages. The problem of viewing daily "rushes," in order to check footage before important sets were struck, was solved by a special arrangement with Eastman's Hollywood laboratory whereby the Kodachrome footage could be processed as soon as the day's shooting was completed, and picked up at 8 o'clock the next morning to be viewed immediately by the director and the cutter. In this way, a constant check was kept on the quality of the footage.

Before a camera turned, Carillon aided by production manager Carl Pingitore and unit manager Oscar Lau planned every sequence down to the last detail. A good many short cuts in shooting were devised, but none that would detract in the least from the quality of the final product. Every move of every player was worked out in advance on miniature sets. Major settings were constructed side by side, so that one set of lights rigged on a single parallel between them could be used to light both sets. When shooting on the one set was completed, the lights could be quickly swung around to the other set and the lighting blocked in while the rest of the set-up was being executed.

The use of top-notch technicians proved a major economy in terms of operating efficiency and subsequently in time saved. In one factory location, for example, 36 separate set-ups were completed in one day. In order to insure perfect continuity and eliminate the necessity for retakes, the cutter was constantly on the set as continuity advisor.

One innovation developed on the picture resulted in a great saving of time and in much smoother flow of action in the film. For economy's sake, all professional films are shot out of sequence, the shots being grouped for maximum efficiency. This means that a medium shot may be filmed several hours or even days after the long shot which it immediately follows in the script. The major problem has always been that of matching cast positions and overlapping action between continuous scenes. A script girl customarily checks these details, and her vigilance goes far toward insuring visual continuity. But during the filming of "Within These Walls," a Polaroid

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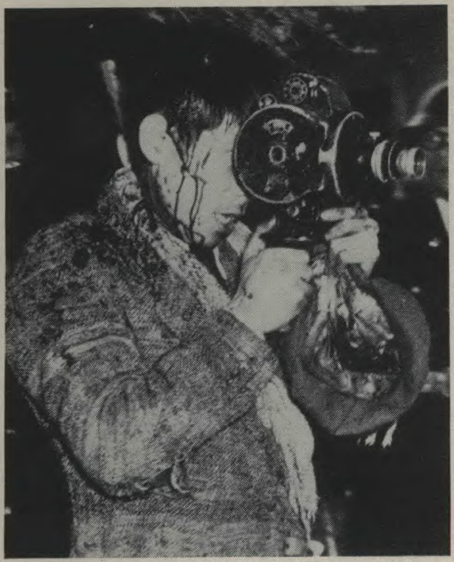

WITH BLOOD streaming down his face, Japanese newsreel cameraman, Hisaya Matsumoto, 34, keeps his Bell & Howell Eyemo camera going to record the violent clash between Korean demonstrators and Tokyo police at the Korean High School, recently. Twenty-seven policemen were injured, ten seriously, when fights began during a protest meeting by 2,000 Koreans. Fifteen of the demonstrators were hurt in the fighting. (Acme Photo).

Land Camera was used to shoot continuity stills. After each good take, the actors "froze" in position, and a still was shot with the Polaroid camera. The picture was developed in the camera in a matter of seconds, and became available for use in checking details of position or gesture for other set-ups within the sequence.

It is the usual practice to underscore a commercial film with "canned" music from a library, but "Within These Walls" (like other Carillon productions) has the advantage of a complete original music score. Written by imaginative young composer Hoyt Curtin, the music is precisely tailored to the changing moods and locales of the film. Special themes were included to point up such scenes as the erupting volcano, the Hawaiian village, the Spanish town, the Indian pueblo, the Eskimo wasteland, an ocean voyage in a schooner, as well as various manufacturing sequences. The result is a musical score perfectly integrated to the demands of the film.

Special mention should be made of the scene design and set dressing. With so many elaborate sets, there might have been a natural tendency to cut corners in this department. Instead, no effort was spared to make the sets as complete and as authentic as possible. Costumes, likewise, fit in perfectly with the demands of the script.

"Within These Walls" is the latest of a trio of commercial films made by Carillon for the same client. "Secrets of the Masters" dealt with paints and pigments. "My Father's House" treated the subject of complete remodeling of old houses. All three films, besides putting over the client's message, are so entertaining to watch that they might easily be used for purely educational purposes. This factor, plus the lack of blatant commercialism, makes the films eagerly welcomed by schools and other organizations that would not book an out-and-out commercial picture.

The enthusiastic reception given these pictures, not only by the client, but by the audiences that have viewed them, tends to bear out the theory that it is possible to produce within a reasonable budget commercial films that sell the client's idea, yet are sufficiently interesting that they hold up perfectly as entertainment films as well. George Carillon Inc., launching into a full schedule of commercials and dramatic films for television, again proves that Hollywood technical know-how is in a class by itself, no matter what the type or subject of the film.

CINE AMATEUR TODAY

(*Continued from Page 271*)

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(*Continued on Page 287*)

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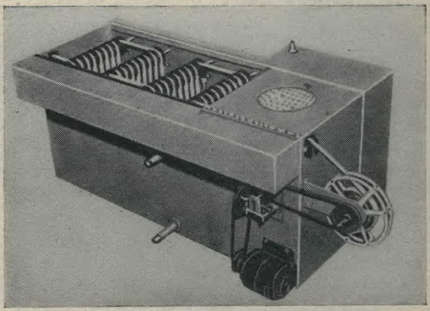

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• Phil Tannura, "Chain of Circumstances," with Margaret Fied, Richard Grayson, Marta Mitrovich and Harold Kennery. Will Jason, director.

• Henry Freulich, "Corky of Gasoline Alley," with Scotty Beckett, Jimmy Lydon, Susan Morrow, Don Beddoe, Patti Brady, Kay Christopher, Dick Wessel and Gordon Jones. Edward Bernds, director.

• Ellis W. Carter, "California Conquest," (In Color) with Cornel Wilde, Teresa Wright, John Dehner and Alfonso Bedoya. Lew Landers, director.

• Fayte Brown, "Pecos River," with Charles Starret and Smiley Burnette. Fred Sears, director.

Independent

• Hal Mohr, "The Big Night," (Waxman-UA Prod.) with John Barrymore, Jr., and Preston Foster. Joseph Losey, director.

• Jack Cardiff, "African Queen," (Horizon Prod.) (shooting in Belgian Congo) with Humphrey Bogart, Katherine Hepburn and Robert Morley. John Huston, director.

• Robert deGrasse, "Chicago Calling," (Arrowhead Pic. Corp.) with Dan Duryea, Mary Anderson, Gordon Gebert, Ross Elliott and Jo Dennison. John Reinhardt, director.

• Stanley Cortez, "Fort Defiance," (Melford-UA Prod.) with Dane Clark, Ben Johnson, Peter Graves, Tracey Roberts. John Rawlins, director.

• Ernest Laszlo, "Mutiny," (King Bros. Prod.) with Angela Lansbury, Mark Stevens, Gene Evans and Patric Knowles. Edward Dmytryk, director.

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• Jack Greenhalgh, "FBI Girl," with Csear Romero, George Brent, Audrey Totter and Tom Drake. William Berke, Producer-director.

M-G-M

• William C. Mellor, "Westward The Women," with Robert Taylor, Denise Darcel, Hope Emerson, John McIntire, Julie Bishop. William Wellman, director.

• Robert Surtees, "The Light Touch," (Shooting in Italy) with Stewart Granger, Pier Angeli, George Sanders, Rhys Williams, Norman Lloyd, Mike Mazurki, Larry Keating. Richard Brooks, director.

• Ray June, "Too Young To Kiss," with June Allyson, Van Johnson, Katherine Givney, Paula Corday and Larry Keating. Robert Z. Leonard, director.

• Harold Rosson, "Lone Star," with Clark Gable, Ava Gardner, Broderick Crawford, Lionel Barrymore, Beulah Bondi, Moroni Olson, William Farnum and James Burke. Vincent Sherman, director.

• Robert Surtees, "The North Country," (Technicolor) with Stewart Granger, Wendell Corey and Cyd Charisse. Andrew Marton, director.

• Ray June, "Just This Once," with Janet Leigh, Peter Lawford, Lewis Stone and Richard Andreson. Don Weis, director.

• John Alton, "Singin' In The Rain," (Technicolor) with Gene Kelly, Debbie Reynolds, Donald O'Connor, Jean Hagen, Millard Mitchell and Douglas Fowley. Gene Kelly and Stanley Donen, director.

• Robert Planck, "Belle of New York," (Technicolor) with Fred Astair, Vera-Ellen, Keenan Wynn and Alice Pearce. Charles Walters, director.

Monogram

• Marcel LePicard, "Let's Go Navy" with Leo Gorcey, Huntz Hall, Charlita, Dorothy Ford, Allen Jenkins and Tom Neal. William Beaudine, director.

• Ernest Miller, "The Longhorn," with Wild Bill Elliot, Phyllis Coates, Lane Bradford, Marshall Reed, Carol Henry and Stan Jolley. Lewis Collins, director.

Paramount

• George Barnes and Peverell Marley, "The Greatest Show On Earth," (Technicolor) with Betty Hutton, James Stewart, Cornel Wilde, Dorothy Lamour, Gloria Grahame, Charlton Heston and Lyle Bettger. Cecil B. DeMille, director.

• Harry Stradling, "My Son John," with Helen Hayes, Van Heflin, Robert Walker, and Dean Jagger. Leo McCarey, director.

• Charles Lang, "Aaron Slick From Punkin Crick," (Perlberg-Seaton Prod.) with Alan Young, Dinah Shore, Robert Merrill and Adele Jergens. Claude Binyon, director.

• John Seitz, "Warbonnet," (Technicolor) with Charlton Heston, Peter Hanson, Joan Taylor, Susan Morrow, Richard Rober, Don Porter, Ian MacDonald, Ted de Corsia, George Marshall, director.

• Daniel Fapp, "Anything Can Happen," (Perlberg-Seaton Prod.) with Jose Ferrer, Kim Hunter, Kurt Kasznar, Eugenie Leontovich. George Seaton, director.

R.K.O.

• Harry Wild, "The Las Vegas Story," with Jane Russell, Victor Mature, Vincent Price, Hoagy Carmichael and Brad Dexter. Robert Stevenson, director.

• Nick Musaraca, "A Girl In Every Port," with Groucho Marx, Marie Wilson, Bill Bendix, Don DeFore, and Teddy Hart. Chester Erskine, director.

• J. Roy Hunt, "Overland Telegraph," with Tim Holt, Richard Martin, Gail Davis, Mari Blanchard. Leslie Selander, director.

• Harry Stradling, "I Want You," (Goldwyn Prodn.) with Dana Andrews, Dorothy McGuire, Farley Granger, Peggy Dow, Robert Keith, Mildred Dunnock, and Ray Collins. Mark Robson, director.

Republic

• Winton Hoch, "The Quiet Man," (Technicolor) with John Wayne, Maureen O'Hara, Barry Fitzgerald, Victor McLaglen and Ward Bond. John Ford, director.

20th Century Fox

• Charles G. Clarke, "The Golden Girl," (Technicolor) with Dennis Day, Mitzi Gaynor, Dale Robertson and Una Merkle. Lloyd Bacon, director.

• Lucien Ballard, "Let's Make It Legal," with Claudette Colbert, Macdonald Carey, Zachary Scott, Barbara Bates and Robert Wagner. Richard Sale, director.

• Joe MacDonald, "Viva Zapata," with Marlon Brando, Jean Peters, Margo, Anthony Quinn, Arnold Moss. Elia Kazan, director.

• Milton Krasner, "The Marriage Broker," with Jeanne Crain, Scott Brady, Thelma Ritter, Michael O'Shea, Zero Mostel and Frank Fontaine. George Cukor, director.

• Lionel Lindon, "East Is East," (Jos. Bernhard Prod.) with Don Taylor, Cameron

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FOUNDED January 8, 1919, The American Society of Cinematographers is composed of the leading directors of photography in the Hollywood motion picture studios. Its membership also includes nonresident cinematographers and cinematographers in foreign lands. Membership is by invitation only.

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Mitchell, Yoshiko Yamaguchi and Marie Windsor. King Vidro, director.

- Harry Jackson, "Lydia Bailey," (Technicolor) with Dale Robertson, Ann Francis, Charles Korvin, and William Marshall. Jean Negulesco, director.
- Leon Shamroy, "With A Song In My Heart," (Technicolor) with Susan Hayward, Rory Calhoun, Thelma Ritter, David Wayne and Max Showalter. Walter Lang, director.

Universal-International

- Carl Guthrie, "Finders Keepers," with Tom Ewell, Julie Adams, and Evelyn Varden. Frederick de Cordova, director.
- Maury Gerstman, "Reunion In Reno," with Mark Stevens, Peggy Dow, Gigi Perreau, Frances Dee and Leif Erickson. Kurt Neumann, director.
- Irving Glassberg, "The Door," with Charles Laughton, Boris Karloff, Sally Forrest, Richard Stapely, Michael Pate, Paul Cavanaugh. Joseph Pevney, director.
- Charles Boyle, "The Cimarron Kid," (Technicolor) with Audie Murphy, Beverly Tyler, Leif Erickson, James Best, Yvette Dugay, Noah Berry, Jr., Palmer Lee and Rand Brooks. Budd Boetticher, director.
- Cliff Stine, "Week-end With Father," with Van Heflin, Patricia Neal, Richard Denning, Gigi Perreau, Virginia Field, Jimmy Hunt, Janine Perreau, and Tommy Rettig. Douglas Sirk, director.
- Russell Metty, "The Treasure of Franchard," (Technicolor) with William Powell, Julia Adams, Charles Drake, Rosemary deCamp, Tommy Ivo and Chubby Johnson. Ted Tetzlaff, pirector.
- Charles Boyle, "Battle of Apache Pass," (Technicolor) with John Lund, Jeff Chandler, Beverly Tyler, Susan Cabot, John Hudson, Bruce Cowling. George Sherman, director.
- Maury Gertsman, "Meet Danny Wilson," with Frank Sinatra, Shelly Winters and Alex Nicol. Joseph Pevney, director.
- Irving Glassberg, "Here Comes The Nelsons," with Ozzie Nelson, Harriet Nelson, David Nelson and Ricky Nelson. Frederick de Cordova, director.

Warner Brothers

- Ted McCord, "Force Of Arms," with William Holden, Nancy Olson, Frank Lovejoy, Gene Evans, Dick Wesson. Michael Curtiz, director.
- Robert Burks, "As Time Goes By," with Gene Tierney and Ray Milland. William Keighly, director.
- Wilfred Kline, "Bugles In The Afternoon," (Cagney Prod.) with Ray Milland, Helena Carter, Hugh Marlowe, Barton MacLane and James Millican. Roy Rowland, director.
- Edward B. DuPar, "The Tanks Are Coming," with Steve Cochran, Eve Miller, Philip Carey, Paul Picerni and Eugene Baxter. Lewis Seiler, director.

16mm Sprocket Intermittent

General Precision Laboratory has produced a 16mm sprocket intermittent that is standard on four of the PA-series projectors developed specifically for television studios and theatre TV. New sprocket intermittent is said to provide greater efficiency in light transmission, reduce film wear and film guide abrasion and is virtually silent.

CINE AMATEUR TODAY

(Continued from Page 285)

ciné hobbyists, and particularly as a member of a club group.

Today we see this more evident in England, than in France perhaps, where almost everyone genuinely interested in making amateur films is a member of a cinema club or society. Many of these groups are quite limited in membership numerically, simply because each member is a worker. Many clubs discourage opening its membership to any but avid movie makers, and thus few clubs carry the deadweight of the "social" member who comes to meetings to see pictures but rarely makes anything worthwhile to exhibit himself.

In England, as nowhere else in the world of amateur movies, we see avid groups of ciné amateurs organized very much the same as professional production companies, the members serving in various capacities such as cameraman, director, lighting technician, grip, script clerk, etc., and working harmoniously together in the production of serious films. Most British filmers, while not lacking in individuality, prefer to work together. They learned early enough that a serious film cannot easily be made by lone workers.

Some idea of the scope of these activities may be had from a perusal of the "News of Societies" column of any issue of *Amateur Ciné World,* British publication devoted to amateur movie making. The June, 1951, edition reports on the current activities of 67 amateur organizations within the British Isles. The following condensations of some of these reports will give the reader an idea of the scope and calibre of the British amateur's group filming efforts:

"Plans are being made by the Astral Cinema Club for filming exteriors for *Deadline* in 16mm. Interiors have proved successful but technicians had to double as actors; actors are still urgently needed."

"Work has begun on interiors for the film being made for the Birmingham Education Committee by the Birmingham Cinema Society. Three groups within the club are each engaged in filming a short."

"Camerawork has commenced for *Ordeal?* — 9.5mm film being made by Birmingham Forward Films. Film consists entirely of interiors."

"The script for the first production to be undertaken by Centaur Film Unit has now been completed. This will be a comedy in 9.5mm and will be shot entirely out of doors."

"Backgrounds have now been drawn

(Continued on Page 290)

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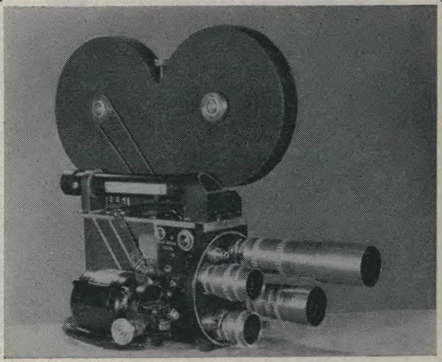

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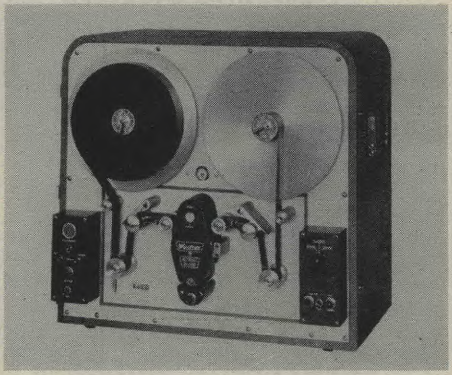
WHAT'S NEW

In Equipment, Accessories, Service

(Continued from Page 258)

Westrex Corporation, 111 Eighth Avenue, New York 11, N. Y., announces its new 1951 Series-1100 Standard Magnetic Recording Systems. These are available in either fixed studio or portable models for use with 35mm, 17½mm or 16mm magnetic film.



Each complete system includes two dynamic microphones, a microphone floor stand, a 2-position Mixer-Transmission unit, a Magnetic Recording machine containing the power unit and auxiliary equipment, a complete set of spare glassware and fuses, and interconnecting cables for operating from single phase, 50 or 60 cycles, 115-volt power source. Complete system weighs approximately 175 pounds.

Complete technical data, prices, etc., may be had by writing the Westrex Corporation.

To meet increasing demand from small users for various types of motion picture film leader, Eastman Kodak Company has announced that it will now supply four different film leaders in bulk. These will be offered in both 16mm and 35mm widths in the following types:

1) Eastman No. 3 clear safety leader —a clear, transparent support approximately .0055" thick.

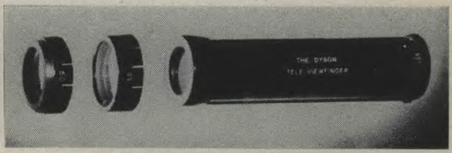
2) Eastman No. 6 black-and-white opaque safety leader, which is approximately .00825" thick, and is black on one side, white on the other. (Both this leader and the one described above will be supplied in standard lengths of 1,000 feet; 16mm rolls will be packed two to a can, 35mm one to a can.)

3) Eastman No. 6 green safety leader is approximately .0095" thick and was developed for use in processing machines where long life is most important consideration. This is supplied in 800 ft. rolls in both 16mm and 35mm.

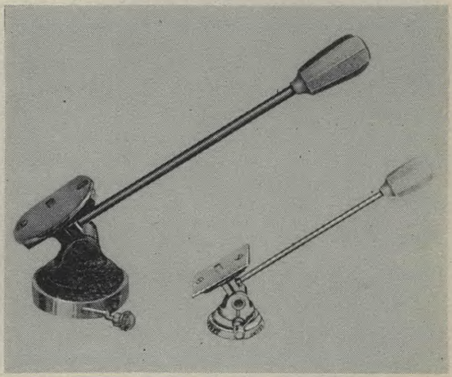
4) Kodak white leader, which is approximately .0060" thick and is the leader that has previously been known as Customer's Leader when supplied in bulk. This is available in 8mm width in 50-ft. rolls and in 100-ft. rolls in 16mm. It is also available in 16mm in 1,000-ft. rolls.

Above leader stock can be supplied in either sound or silent perforations or unperforated.

The Dyson Tele-Viewfinder enables the TV director or cameraman to compose his scenes or conduct rehersals without resorting to use of the TV camera. Finder, operating on zoom principle, gives accurate fields for 90mm, 135mm, 8½", 13", 15" and 17" television camera lenses. Wide angle adapters are included for 35mm and 50mm lenses, which snap over the finder lens. Finder shows same ratio of magnification and perspective as corresponding TV camera lenses. Priced at $39.50 each, the Tele-viewfinder is sold by The Camera Mart, Inc., 70 West 45th St., Yew York City,N. Y.



Two new panheads have been introduced by Testrite Instrument Co., 57 East 11th Street,New York 3, N. Y. The Gear-Drive panhead for movie cameras gives smooth, automatic panning action, plus a steady camera at any desired angle, for which the gear-driven method it noted.



The Model C Panrite does not have the gear feature but is suitable for all movie and still cameras. This sells for only$2.95. The Gear head retails for $7.95, plus tax.

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NATIONAL CINE LABS. ANIMATION STAND $4750.00

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SEE OUR LARGE AD ON PAGE 256

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(*Continued on Next Page*)

Classified Ads

(*Continued from Preceding Page*)

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BASS . . . CHICAGO, offers a practically new 16mm B&H. Specialist complete with 1″ Lumax F:1.9 coated in foc. mt., 17mm. Ansix F:2.7 coated in foc. mt., 2″ F:3.5 Telate coated in foc. mt., incl. one sync. motor and one wild motor, 2-400 ft. magazines, carrying case, Professional Jr. tripod. List $3100.00. Bass price $2100.00. Write or wire deposit for this grand bargain. **BASS CAMERA COMPANY,** Dept. 179 W. Madison St., Chicago 2, Ill.

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Will pay cash for Eyemo cameras and lenses. Quote prices and descriptions.

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ESTABLISHED Hollywood Television Film Company needs mature Associate Business Manager. Prefer party with some knowledge film, advertising or entertainment. Investment controlled by expansion and degree participation. Only letters giving full background answered. Box 1132, AMERICAN CINEMATOGRAPHER.

USED Single System sound camera complete. JANSEN, 259 East Wells, Milwaukee, Wisconsin.

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Directors of photography, camera department heads, industrial and television film producers, film laboratory heads—these men and their assistants naturally are cover-to-cover readers of *American Cinematographer* because they must keep informed on motion picture production trends, new cinematographic equipment, new techniques—which today, more than ever, is "must" news.

When appearing next to this important "must" news, advertising in this magazine gains prestige and importance.

~

AMERICAN CINEMATOGRAPHER
Advertising Department
1782 No. Orange Drive, Hollywood 28, Calif.

THE CINE AMATEUR TODAY

(*Continued from Page 287*)

for the opening scenes of the feature cartoon, *The History of Walton,* being produced by the Ashley Film Unit. A complex multiplane technique is to be used to give a three-dimensional effect on a long panorama of Neolithic landscape. Experiments are to be made shortly on 9.5mm Kodachrome — a stock which is to be reserved exclusively for the Unit's cartoon work."

"Professional methods were adopted by the Coventry Film Unit when portrait photographs of all members were taken. Prints are being filed and will be used to assist the director in casting future productions. The construction of a camera boom for the club is being discussed."

"Work has begun by the Eccles Amateur Ciné Group on the special Festival Year production, *A Policeman's Lot,* 16mm comedy. To consist mainly of exteriors, it will be filmed against a village background."

"The instructional film, *Treatment In The Hot Pool,* which was made for the Spa Committee by the Grosvenor amateur film group, and which deals with the hot spring treatment of arthritis, was recently screened before 200 medical students in Edinburgh. *All That Glitters* is now well under way and the production of *The White Goddess* will be resumed shortly."

Needless to say, the ambitious film making activities evidenced by the above reports have no parallel among amateur groups in the U. S. This is not a jibe nor meant as anything but helpful criticism. Our amateur movie makers have for the most part lost their way along the road leading to a most rewarding hobby. It is plain, if only by drawing comparisons between the U. S. ciné cameraist and the European, that the former's great need is to join together and work collectively for the fruitful rewards the hobby holds for the serious ciné amteur.

Perhaps the reason we see so many amateurs produce one great film, never to repeat the success again, is that they found working alone far too demanding of time and resources. How much more fun could be had by playing just a small part in a production group—the cameraman, director, editor, or script clerk — working jointly in the production of many films, than in the solitary effort that so often results in dampened enthusiasm?

(To Be Continued)

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To maintain this service, the Eastman Kodak Company has branches at strategic centers . . . invites inquiry on all phases of film use from all members of the industry. Address:

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New York 17, New York

Midwest Division
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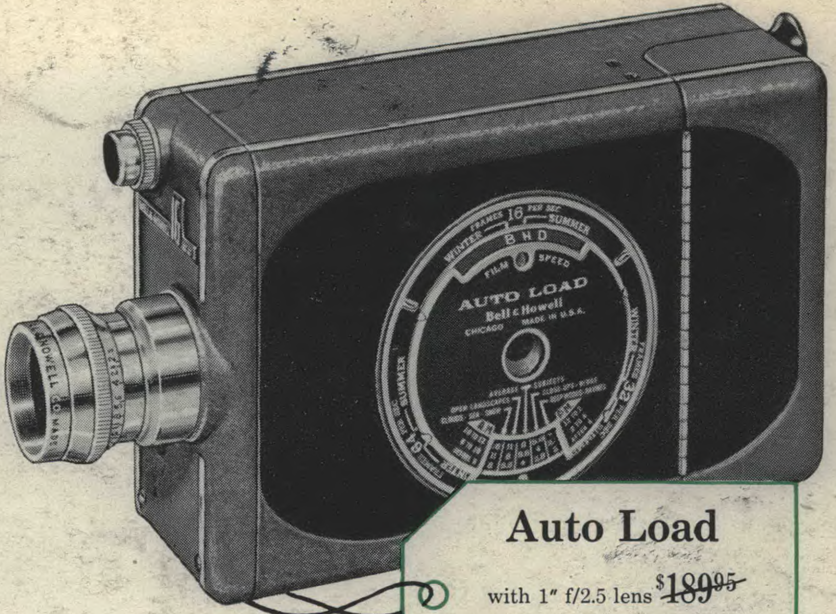

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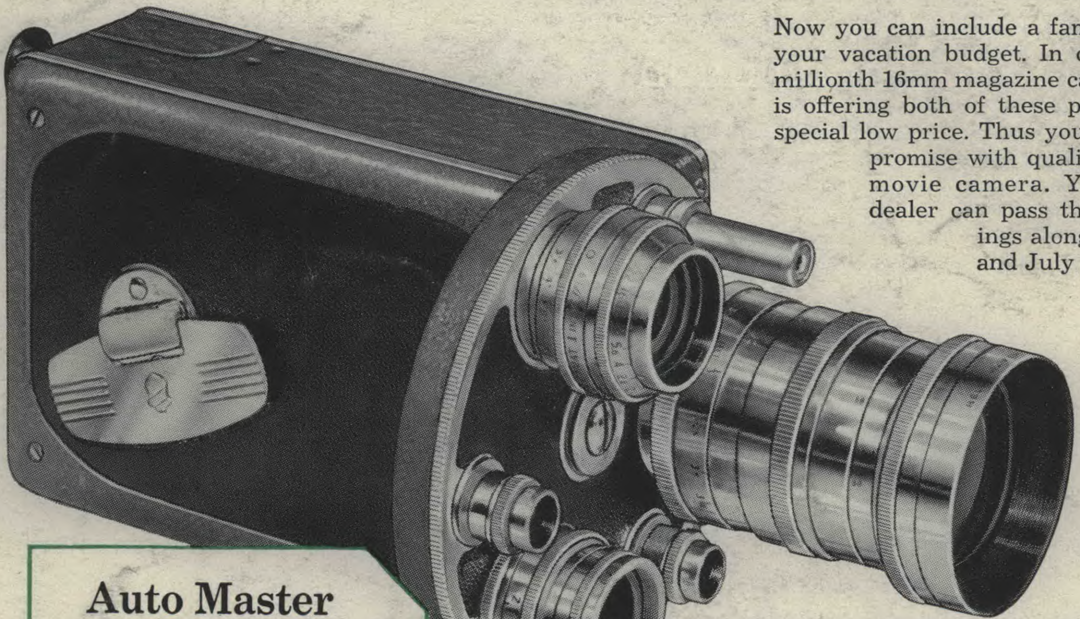

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